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PART I.—ESSAYS, MONOGRAPHS, AND CASES.

A Lecture, introductory to the courses on Physiology and General Pathology, in the New York Medical College, during the Sessions of 1853-4 and 1854-5. By Prof. E. H. PARKER, M.D., &c., &c.

GENTLEMEN: We commence to-day a series of enquiries and investigations in two of the most attractive and interesting branches of medical science.

If we had collected together all the facts concerning the various forms of organized structure with which our world is replete, if we knew precisely what were their relations to each other, and could comprehend all the various alterations constantly taking place, both in the condition of health and in that of disease, weighing accurately the influence of each upon all the rest, we then could construct a complete and exact science concerning life and its various manifestations, which would be satisfying to the most fastidious, and sufficient for the most exact. To such a science we should give the name of Biology, the science of life. This name is now given to the imperfect collection and arrangement of facts tending to, but which is far from having reached this degree of accuracy.

Let us take this for our starting point, that all the objects in the world being divided into two classes, the organized and those which are not organized, the science of Biology is employed in the investigation of the structure, functions, and conditions of all the former class, and investigates all its phenomena, manifested in health or in disease, in the minute cell constituting the perfect plant of the red snow, or the complex and involved structure of man himself. Almost innumerable are the forms of structure in which organization is manifest. Run through if you can in your mind all the forms in which life has manifested itself to you, in all the vegetables about you, and all the animal organizations with which you are familiar, and then recollecting that to no one of you can it have occurred to meet but a very small proportion of those with which creation is stored, you will comprehend something of its immensity. How then shall it be that we shall not be lost entirely in the great field before us?

As in all other of the natural sciences, we divide our investigations into various classes, all tending to the same end, but all seeking it in different ways. Thus we enter upon the study of the structure of man, and animals, and vegetables, and our investigations are properly within the limit of the anatomist. He deals with the perfect, the complete organism, showing the arrangement and relations of the various parts to each other, and the general purpose and use for which each is designed. This is anatomy, and is to be learned only by cutting apart, as its name signifies, that which is complete, and showing how the combination constituting the individual was bound and held together, and was enabled to act, or to exist.

But now if, instead of this, we seek to ascertain how it is that each vegetable or animal seeks from the world around it that which is adapted to its nourishment, how it is that from various sources its nourishment passes to constitute a part and parcel of its own organization, how it is that a mass of matter which can be resolved by the chemist into a few elements, is enabled, under the influence of a certain organization, to increase, to reproduce itself, and more mysterious still, is able to give, in the highest order, evidences of the will of the immaterial something constituting the mind and soul, we appear to

enter upon a new field. Still it is a portion of the same, and we see that it also tends to illustrate the science of life. This constitutes physiology.

The facts from which the science is to be constructed cannot be obtained, as by the anatomist, by the use of the knife. The physiologist has to do mainly with life uninterfered with. Not that he may neglect anatomical enquiry, for, on the contrary, he must be well grounded in that before he thus diverges from its precise limits, but he cannot separate an organ and observe its functions, its mode of development, or its relations to the organs surrounding it. The very act of separation destroys that which he desires to investigate. For this reason the physiologist must seek for the facts of his science, not from his own experiments chiefly, but from those experiments which, so to speak, are furnished for him by the greater prominence given in one or another individual to the very structure whose properties and functions he investigates. This compels him to study in a larger field; to draw his knowledge from more varied sources, and to cultivate a spirit of more general investigation and knowledge. The anatomist may confine himself in his studies to one class of animals, as the horse, or man, and may become, by studying that branch alone, very skilful and learned in his department. But whoever would be learned in human or vegetable physiology, or in any other department of it, must of necessity be acquainted with the whole science, and that not merely in the way of obtaining a slight insight into it, a smattering of it, but thoroughly and completely acquainted with it.

But again, in endeavoring to understand completely the laws and progress of the development of life, one is met by the fact that sooner or later each organism in the vegetable and animal world shows evidence of disease or decay, ending in its destruction. To investigate the causes and the manifestations of this disease and this decay, becomes necessary to a full understanding of life, and in entering upon this, one treads a different portion of the field which we have contemplated. This constitutes in fact pathology, and requires a more or less complete knowledge of the portions of which we have before spoken, in order that it may be pursued with the most profit. All three still constitute but one whole, and are necessary to the perfectness

of it, and Biology, as a science, cannot be complete if either of these three is wanting.

Or we may look at the relations of these branches of medical knowledge synthetically, and say that one may commence his acquaintance with organized structures, by studying their construction, by examining what is visible to him of the relations of various parts, by separating those parts carefully from each other, that is, he may study the *anatomy* of the object submitted to him. He may then proceed, having learned that there are certain organs, to investigate the functions of each, removing obscurity by extending the field of his investigations to other classes, and thus gaining additional information upon the subject before him. Thus he learns what is its *physiology*. Then he may enquire into those causes which tend to destroy, and sooner or later do destroy its organization, learning of its diseases and decay, and here he touches upon *pathology*, while all along he has been studying the various manifestations of life, and becoming acquainted with its curious and wonderful workings, and therefore while his pursuits have been much varied, they have tended still to instruct him in *Biology*.

It seems to me that it is not simply a matter of curiosity thus to define the relations of these various branches to each other, but a matter of absolute necessity. For the want of this, it has sometimes occurred that in the multiplicity of sciences confusion has resulted, and much valuable time has been lost by the student in endeavoring to carry on some of the more advanced of these, as pathology, without comprehending the important connection of the others as preliminary to it. Just as we have seen strangers striving to save time by some apparent short cut, which leads them to confusion, rather than patiently walk along a dusty road, in which every step gives them real advance, because it looks long and wearisome. There are no short ways to knowledge, and the wise man is content to plod.

It may not be improper to pause here to say that this idea is important, not only with regard to those branches of medical science of which we have spoken, but of all the departments together. Thus we may say of the usual curriculum of studies taught in schools, or in the office, that the beginner should first turn his attention to anatomy, chemistry, physiology, and mate-

ria medica, and not till he is acquainted with these, should he pursue his enquiries in therapeutics, pathology, surgery, obstetrics, the practice of medicine, and medical jurisprudence.

I know this has not been the way in which instruction has been and still is frequently given. Too often in the office, and there more frequently than in the school, has the student been first supplied with some work on the practice of medicine, or surgery, and after a time been shown a patient who has a fever or a tumor, and been told that for this fever or that tumor such remedies or such an operation is desirable. And in due time the young man learns to think that if a person is pronounced to have a fever, he understands his disease perfectly, and as a matter of course gives certain remedies, for they are good for fever. He is satisfied, and perhaps his patient recovers. But it is this mode of instruction which begets routine practitioners, a highly dangerous class to the community. And I here, at the commencement, make this digression, that if there is any one of you who has been unfortunate enough to have fallen into similar habits, he may at once begin to set himself right in his course. It will simplify mysteries, and it will make molehills of mountains. But let us return from our digression.

I have before stated the self-evident proposition that all the objects in the material world are divided into two great classes, the organized and the non-organized—a proposition so entirely an axiom that it cannot be doubted. Physiology then, we may say, is that science which has for its object the investigation of the actions and functions of all living beings that come within the range of our knowledge. It is clearly a science having a vast range, but as it is pursued one is astonished and delighted to perceive the light which is received from sources apparently the most incongruous and entirely unexpected. The definition given, it will be remarked, excludes much that in the ordinary use of the word is included in the science. Thus it has to do with the *actions* and *functions*. This excludes of course, strictly speaking, the study of the structure of living beings,—not that it is not of the highest importance to the physiologist to be acquainted with their structure. Properly speaking, that knowledge is a *pre-requisite* to this science. Still physiology has of late years, in its rapid progress, gone almost hand in hand with

the study of the tissues, called in medical nomenclature histology, and some confusion has arisen from their thus having been taught together. Though we shall constantly refer to histological discoveries, and have very much to do with them, still it seems to me that the division now made in the curriculum of studies of this school, is the only correct one. Histology is attached to the chair of anatomy, and is as properly a portion of that branch of our science as osteology. It is the anatomy of the tissues, as strictly as osteology is of the bones, and though perhaps a larger portion of its progress has been made by the use of the microscope, it does not at all affect the argument. Please remember, then, that though we shall have very much to do with histology, it is not, strictly speaking, a part of physiology.

But the science which investigates the whole field now opened before us, is divided in various ways in order that it may be more easily examined, and the facts discovered be more properly classified. Thus the investigation of those functions, as aëration, which concern the whole class of living beings, constitutes *general* physiology; while that which investigates the peculiar actions and functions of any particular series or division of living beings, is *special* physiology. Under the general head of special physiology we may range the following subdivisions, not as parts of special physiology, but as instances of it,—thus *vegetable* physiology is that which examines into the physiology of all plants, from the least to the greatest; while *animal* physiology equally concerns itself with the whole range of animal life. Of this latter class *human* physiology is clearly a subdivision, though to us as students of medical science it is the important portion, the *gist* of the whole matter. So, too, when the results obtained in different departments are brought together and compared, especially for the purpose of throwing light on obscurities, the special name assigned is, comparative physiology. Each of the special departments is capable of still farther subdivisions, and as we proceed we shall meet them, but here it is not necessary to dwell on them.

Pathology is divided in much the same way, and for the same reasons. Pathology is the science of disease, and it is the business of the pathologist to study into all the changes which dis-

ease produces, whether in the tissues or in the functions of the individual. It is a mistake often made to suppose that he is chiefly concerned with the evidences of disease, which are manifested by the alterations in the tissues, either during life or after death. Pathology has to do with these; but there are very many other things of equal importance to its prosecution. Thus, it is necessary to study all the causes of disease, not only within, but without the individual; not only as derived from others by descent or communication, but those which come from the atmosphere, or climate, or exposure, or heat, or cold, or from the thousand and one things that surround us. It is occupied in discriminating disease; in foreseeing its termination in health or in death, and in determining what class of influences must be brought to bear in order to hasten the one or ward off the other.

Pathology may be divided, like physiology, into general and special—the former having to do with diseases in general, while of the latter there may be as many divisions as one chooses to make. These divisions may be founded either upon the disease, or upon the organ or tissue diseased; and for this reason we find so many divisions made by various authors. Of general pathology, too, there are numerous subdivisions, to some of which allusion has been made, and the most prominent of which are, in medical nomenclature, nosology, ætiology, semeiology, diagnosis and prognosis; and to each of these, hereafter, some time must be devoted. With the anatomy of diseased tissues we shall also be occupied; but I beg of you to divest yourselves of the idea—if unfortunately it has taken possession of you—that this is pathology itself. This is pathological anatomy, and stands much in the same relation to pathology that general anatomy does to physiology. I do not desire to depreciate this study; it is highly important, but I wish simply to enforce the fact that pathology is more extensive, and much more general in its range and investigations.

It will readily appear, to any one who stops to think, how essential these two branches are to the practitioner of medicine. The various branches, which together constitute medical science, have for their ultimate end the preservation of the human race from disease and its effects. These two sciences—

the one the foundation of the other—lie at the very bottom of our investigations. Before we learn to ward off disease, we must learn what is the condition of health which we desire to preserve. This physiology teaches. The means by which, and the mode in which we are to preserve our bodies in this condition of health are properly within the sphere of hygiene. The two go together, and hygiene is the practical application of the teachings of physiology. In these practical times, it is often considered *more* important; but it should be remembered that it owes all it has of value to physiology, and that without it, it is nothing: so rational medicine owes very much to pathology. It is this alone which gives any light to the student, save what is derived from the merest empiricism, using the word in its legitimate, not its artificial sense. For what but this showing what disease consists in, and what is *desirable* to remove it, can give certain indications for its treatment? Without this clearly, the use of one remedy or another, the simplest or the most complicated, must be merely a trial, an experiment, in which the chances of a favorable or unfavorable result are about equal. Therapeutics, then, is not at all a portion of pathology, though it has frequently been so classified. The relations of the two may be thus expressed: Pathology teaches that from certain appearances, which we may call symptoms, we are authorized to say that certain changes are, or have been taking place in the system; and that in order to remove this evil, or to restore the natural condition of the organs or tissues, something is necessary which will produce certain effects; but pathology is not concerned to say what that something is. Therapeutics must say whether or not that something is known, and if known, must draw on its armamentaria of the *materia medica* for it. Or if pathology declares itself unable to point out how the disease could be cured, or if therapeutics is unable to say what will cure it, it only remains for the surgeon's knife to remove it, or for the confession to be made that it is beyond the reach of the science of medicine. This, then, is the relation of these four branches of our science. Human physiology investigates the system of man, and learns what is the condition of health, while hygiene is occupied in examining into all those influences which disturb this state,

and endeavors to find some way of removing them. Pathology points out the causes, the signs, and the effects of disease, and gives a general intimation, or indication, as to the mode in which the disease can be removed ; while therapeutics decides whether or not there is any mode known by which the indication of pathology can be accomplished. You see, then, how admirably all the various branches of our science fit into each other, aid each other in accomplishing the same great end, and still how distinct and separate they, in fact, are.

To my mind, a clear and distinct appreciation of this union, and of this independence, is highly necessary to the most successful prosecution of medical science. And there is the more need of distinct limitation of the sphere and purposes of pathology from the very great burden of sophistry and obscurity which it has been compelled to bear. The time has been when either medicine ran away with pathology, or pathology with medicine ; or when both together have wandered off into those misty regions of assumption and hypothesis, which have at one time or another been detrimental to almost every one of the natural sciences. Humoralism and solidism are two of the many extremes into which, at one time or another, theory has led physicians ;—not that theory is necessarily an evil—very often it is useful and is a matter of necessity ; but when separated entirely from the inductive teaching of the Baconian method, when starting only from the imagination of some ingenious philosopher, it dwells on subjects of which it is ignorant, and uses for proofs its own assertions unsustained by any evidence, it is entirely and only injurious. Facts are what we need, and truth is the object of our search. But it is real facts and truth, not its semblance, that we must obtain. The various sources of error in both of these we shall have occasion to refer to as we proceed in our course ; but throughout it must be remembered that there are alleged facts which are only assertions or mistakes ; and there are doctrines still taught for truth which contain but very little of that eminently desirable element.

From the field thus opened to us, from the general survey we have taken of the studies before us, was I not justified in saying that the branches which we are to pursue together are

among the most interesting and attractive of all those which, in their combination, constitute medical science? I know that every one is a little inclined to "magnify his office," and to suppose that the particular pursuit in which he is engaged is of more importance than all others. But it is not this view of the subject which I wish to take. The cry very often comes to the physiologist and to the pathologist, what is the use of your straining your eye peering at some minute particle of matter through your microscope? or why do you waste your time investigating the relations of health and disease in their various effects, visible only after diligent search and the most cautious examinations? Give us something tangible; give us something practical. Ah, gentlemen, that word practical has done much mischief in the world. No one would be ready to devote himself sooner than I to the really practical, and to seek to gain that which shall be useful. But practical too often means that something is desired which shall, in five minutes or five days, be sure to put money in one's pocket, or immediately give some evidence that it is improving our science in that which is its great end—the cure of disease. But empiricism, trial, experiment, has accomplished almost all that it can; and now patient and diligent observation are necessary in order to ensure accuracy. I have known one to peer through a small microscope at some tissue hastily spread out, and, seeing with more enthusiasm than judgment, he has hastily announced his discoveries, contradicting, sometimes with positiveness entirely unsurpassable, the statements of diligent and patient investigators. Here was your practical man. He never looked but to see something new, and something which tended frequently to show how erroneous were ordinary modes of proceeding and treatment. But, alas! his discoveries were evanescent, ever succeeded by something novel, never enduring the slightest test. The careful chemist knows very well this source of error; and before he commits himself as having made any discovery, repeats his investigations very many times, striving at each to guard against all possible sources of fallacy; and it is only when he has at last succeeded in showing that there is no possibility of error that his observations are announced. Such should be the mode adopted by the physiologist, and especially

when pursuing his inquiries in microscopical matters. There is so much need of care, so many possibilities of error, so much that may be supposed to be seen when it is only the error of an uneducated observer, that too much caution cannot be used in verifying all that is apparently new and important. For this reason, our best observers are slow in bringing the results of their observations before the profession. They appear to be expending months and years on matters of slight importance, or, at best, of curiosity only.

But the fact is, so many errors have cumbered, or have been alleged to cumber the science of medicine, that it has been necessary to re-examine its foundations and detect all possible sources of mistake. Sometimes a clue is obtained to errors, and to follow them out requires very long inquiry, and a patience which would unravel the mysteries of the labyrinth. But the one engaged in such pursuits may, even after years of investigation, bring forward facts which shall compel the *practical* man, who has been so profuse with his sneers, to abandon entirely his whole mode of treatment, may point out to him errors which he never could have seen himself, and entirely overwhelm him with the brilliancy of his discoveries. I beg of you to be *practical*; but I also beg of you not to be *only* practical.

It may not be inappropriate here to dwell for a short time upon some of the improvements which physiologists have made in medical science. To do this fully, it would be necessary to go through the whole history of the advance of the science, from its comparatively recent origin to the present time; and to show how at each step it has made some correction in the opinions or practice of medical men, which, though afterwards to be still farther corrected, was, at the time, a real and substantial progress. To follow up the successive improvements and obligations, under which physiology has thus placed our science, would be in the highest degree interesting; but this pertains more to the history of medicine than to our immediate department, and requires more time than I find myself at liberty to devote to it. In a general way, we may point to these improvements.

Before the rise of physiology, it was the custom with medical

men to look only at disease in the aggregate—as a mass of symptoms indicative of great derangement in the integrity of the tissues and functions of the system, and as completed, or at any rate, far advanced, not as incipient or commencing. Thus, the quick pulse, the hectic cheek, and the glassy brilliancy of the eye, would indicate then, as now, an advanced condition of tuberculosis pulmonic, abdominal or other; but it was not then known that the first origin, the first fanning of an hereditary propensity to it, was from a general depravation and impoverishment of the system, and thus that conversely, when such a propensity was known to exist, it was to be guarded against by early and continued efforts to avoid all exhausting and depressing influences.

Again in the knowledge and treatment of diabetes mellitus, great changes and improvements have been made, though we are still unable to reckon it among the curable diseases. But it is only a few years since all that was known of the disease could be summed up, by saying that persons first showed indications of the disease by the inordinate quantities of urine discharged each day;—and that this urine, more or less loaded with sugar, continued to increase in quantity—the strength of the patient disappearing, notwithstanding his appetite was good, or the quantity of food ingested was large, his flesh wasting away, till at length the flame, which had long flickered, suddenly went out. Pathological anatomy could detect no alteration in the kidney or other tissue, and the disease was among the profound mysteries of the science. But physiology showed that the function of the kidneys is not to create the urine from the fluids furnished to it, but to separate certain ingredients from those fluids. With this suggestion, the chemist sought for sugar in the blood, and, detecting it readily, the inquiry next arose, how does it come in the blood? But do you not see that this is an advance apparently theoretical, or rather in the theory of the disease? Still, it is an eminently *practical* advance; for, instead of teaching that the kidney is diseased in some way or other, and thus leading practitioners to address their remedies, whether alteratives or counter-irritants, to the kidneys, physiology has shown that the kidneys are in their normal state, or rather are performing

their normal function. The pathologist then must look for the disease elsewhere, and the practitioner must apply his remedies elsewhere. Still, chemistry might have detected the sugar in the blood as well as in the urine, and pathology might have declared that there is no apparent disease in the kidney; and the practitioner might have said that his remedies did no good; but till physiology could declare that the kidney performed its proper function, neither of the others could escape the conclusion drawn, that the chief symptom of the disease comes from the kidney; and therefore it is the kidney that is diseased. I do not say that the cloud is cleared away; it is not by any means: still a step forward was thus taken, and the physiologist was the safe guide that authorized it; and if I am not much mistaken Claude Bernard, in the investigations which he is now making on this subject—and to which I shall hereafter refer—will again teach the medical world the value of physiological studies.

So also the study of the blood, or the physiology of the blood, has led to some most important results. Thus, of its various constituents, fibrine has been long recognized and acknowledged as important. Now, the physiologist, in his various experiments, has found that mercury has the effect to diminish materially the amount of fibrine in the blood, or at any rate to diminish its firmness. This observation at once threw light upon the use of the mercurials. These much-abused, but excellent remedies, sheltered under the indefinite title of alteratives, had often been used empirically when it was doubtful what had better be selected as the remedy for the patient. Sometimes they did good; sometimes they did harm. But now the mercurials are used as alteratives in those diseases in which it is found that there is too much fibrine developed, or where it is poured out upon surfaces or in cavities, and threatens to interfere materially with the functions of any organ.

What, too, but the investigations concerning the blood, instituted and urged on by physiology, could have revealed to us the disease recently recognized under the name of "leucocythæmia," and which has for its characteristic a great preponderance of the white corpuscles of the blood.

Or we may point to the immense improvement in the treatment of diseases of the nervous system, as a proof of the benefits derived from a study of the physiological system—whether it be to cure diseases before incurable, or to discard an operation which was frequently performed to relieve *tic dolooureux*, by dividing a nerve which did not convey sensations from the part.

These are but a very few instances to which I have alluded ; but we could easily multiply them, though to trace them out fully would, as I have said, occupy too much time.

I do not claim everything for physiology ; but I do claim for it a very important place in the various branches of medicine, which are now together carrying forward our science to more and more advancement and success, and which are constantly improving our means and our ways of curing disease.

The general arrangement of the course of lectures in this department will be the following : First, to establish the principles of general physiology, that which pertains to the functions of all organized beings ; then, passing by much which is interesting in vegetable physiology, to go at once to the consideration of animal physiology, in which will be included the study of the functions which pertain to animals in general ; after which we must pass at once to human physiology, to which much more time must be devoted, as being that chiefly important to us as students of medicine—desiring chiefly to investigate the human system in health, that we may be able to say when, by any departure from it, disease arises.

I propose then to turn to pathology, that is having studied the phenomena of health, we will then enquire into those of disease, being prepared to appreciate them better. Here, too, we must first consider *general* pathology, and this we shall dwell upon longer than upon general physiology. The reason is obvious, because the latter including much that is derived from lower organizations, may be dispensed with, when we are principally concerned with human life ; but the former, which is properly speaking, general *human* pathology cannot be dispensed with in any respect when our end is the same, for it is but another name for the general investigation of the diseases of man. Thus we shall study the principles which apply to

all diseases in general, and the principles which seem to direct in the progress of particular disease. But it will not be possible to follow out in each organ the whole series and succession of changes, which each disease produces. Thus we may consider the general principles which regulate the development of cancer, but it will not be possible for us to follow out the precise mode of its development in each organ or tissue.

You see then that we have an abundance to occupy our portion of the time of this session, fully and completely ; this I hope we shall do, not only with interest but profit. But, gentlemen, there is one thing which it is of the utmost importance to you to bear in mind, namely, that it is for you to do the work from which you can derive any profit. It will not suffice for you simply to present yourselves in this room, and to hear what is said. You are to study and to think. Cogitate for yourselves, and lay up those principles which are of value, not because I or any one else says they are true, not because you are *convinced* that they are true. In this respect many commit an error, when they undertake to obtain an education, and especially in the study of medicine, where so much is done by oral instruction. There is comparatively little danger of this error, when all the sources of information are books, from which the knowledge must be obtained by a careful perusal and study of them. The very fact of the eye being compelled to pass over each word and the mind to comprehend its meaning, tends to, though it does not always succeed in preventing, superficial acquaintance with the subject studied. On the other hand, where all that is required of the body is to be present in the lecture-room, the mind may wander into regions far from scientific, and to subjects pertaining to anything but medicine, so that only the heads of the topics are retained in the memory, if fortunately even they make a lodgment. Still all about, having heard differently, are perhaps speaking of the topics discussed, and to appear not to understand them, would show at once the error committed, so that vagueness is resorted to, to hide the disagreeable fact of ignorance. A repetition of the same mode settles the habit definitely, and when once settled, its removal is almost impracticable. This I say is an especial danger in the method which is necessarily adopted of teaching medicine.

chiefly by lectures. And this is a danger to which all of you are exposed, but to which I trust no one of you will fall a victim. There is a process in teaching, which is called in the English universities *cramming*, by which it is undertaken to supply within a fixed time, a certain amount of information to the mind of the pupil. The same word is applied in some rural districts to a process, by which fowls intended for market in a certain period, are made to fatten very rapidly. I confess, that for all useful purposes, for all that is really valuable, the biped that bears the feathers is by far the most fortunate. The purpose of education is more correctly expressed by its derivation from the latin, than by the process usually understood to be gone through. It is to draw out, to lead out the mind, so that all its powers shall in their relations, each to each, possess the greatest fitness, and the individual thus be best prepared to avail himself of all the mental ability with which he has been endowed. This process does not at all pretend to store the mind with everything that it shall need in coming time, but to fit it to acquire what it shall need for itself. It was one furnished in his mental stores by the cramming method to whom Dr. Rush (I think it was), administered the well-known rebuke: "I have recently finished my studies, sir." "Finished your studies, young man, I have but begun mine." A degree, whether academical or professional, is but an expression of a certain amount of progress limited, but sufficient to enable its possessor to go on farther in the course which he has commenced. A recent writer in a British medical journal, in speaking of this subject, expresses the truth very simply and forcibly, thus: "a professor wastes the time of himself and his class, if he tries by details to save the pupil's personal labor. Private study alone can give them this knowledge." Gentlemen, I do not propose to deal thus unfairly with you or myself, but to adopt such a course as will be for your real benefit, and such as you will hereafter see, if you do not know to be for your highest interest. It is not at all my purpose to dwell with you upon every point or topic, which has been taught under the name of physiology, or to discuss with you all the minutiae of the topics which are from time to time mooted, or to attempt to teach either physiology or pathology as a perfect

science. Certain principles in each are fixed and established, and these I shall endeavor to make clear to you. Others are fast approaching a solution, and to put you in possession of the facts already ascertained, and the direction and results to which they appear to point, qualifying you yourselves to act as judges, is all that any one can accomplish.

It has always been the case in every period and region of great activity and vigor of vegetable life, that with much that is useful and healthful, there also springs up much that is useless or poisonous. He is the best botanist, the most useful man, who going among these various growths, decides upon their qualities, not by experiments in his own person, but by means of the thoroughly established principles of botany, who can point out almost with certainty, the properties of each from its most prominent peculiarities. So in every time of intellectual vigor, when every science is pushing itself forward with unusual activity, very many weeds spring up. Half observed facts and crude theories are hastily sent out, cumbering the ground and poisoning the mind that attempts to feed on them. The acquisition of the power to discriminate between the good and the bad, is that to which I invite you, and if each aids it will be accomplished for all, but into no one can this be forced. I cannot more briefly or more forcibly impress upon you the thoughts which I have thus dwelt upon, than in the words which old Polonius addressed to his son :

To thine ownself be true.

There are one or two other topics upon which I find myself stirred to speak to you, though they do not especially pertain to this chair, but to which I fear I shall not again find so fitting an opportunity to refer. As we have thus far been somewhat digressive, it will not be doing much violence if we continue to be a little farther.

From the moment that one commences the study of our profession, his character and reputation begin to be a part and parcel of the reputation which is the common property of us all. To the degree of standing to which he has advanced is directly proportioned the degree of injury that he can inflict upon the whole. Remembering this, I wish to give you two pieces of advice, not that my age particularly authorizes me to

speak as a *pater familias*, but because from some observations I know that these evils are not imaginary or of slight importance.

And, first, beware of quackery in all its forms, in all its shapes, in all its allurements, and in all its temptations. Keep yourselves clear of the vile contamination. I am persuaded that very much of this rampant evil has its rise long before the graduating degree is conferred. One at first sees only the attractions, the gilded charms of this seducer, and in utter ignorance of the foul contamination of her character, listens to the inducements she holds out. It is not usually the case that a student gives himself to quackery while pursuing the study of medicine, but I have known it to be done when the strongest guards have been put about him, and the strongest promises given that it should be abstained from. This evil has however increased within a few years, and it has repeatedly been the case of late that the ill-worn disguise has been dropped as soon as a degree has been conferred. Clearly this is the result of an almost constant duplicity and deceit, and it hardly could have resulted if the neophyte had been duly warned of the dangerous web that was forming about him. The first starting point being granted, the process by which the snare is completed goes on steadily and constantly unless some great effort is made to destroy it?

There are two or three precautions to be taken at the outset if one would avoid this evil. One is ever to preserve the high sense of honor which would forbid any departure from the course which alone brings credit to that profession to which each member of it owes so much. Our science is the result of no one man's labor, but of that of whole generations of men, each striving earnestly, if not always wisely, to advance it, and to set still farther forward in the regions of ignorance the outposts of knowledge. But pretenders to knowledge which they have not possessed have ever been its opprobrium, and have ever been a bye-word and disgrace to it. So, too, have those been who have sought it only for its profit—reaping where they have not sowed. Undoubtedly we should expect profit from it, but when man looks to any science only for its golden rewards, he ceases to honor the science or to be its devotee, but

worships only the god mammon. Each one of us owes our noble science a debt which, as honorable men, we cannot refuse to pay, or refusing which we show ourselves only bankrupt of principle.

But principle more than honor must be our second security against this evil. It does require some principle to refuse to be enticed to some path in which you may, by a little exaggeration or a little prevarication, reap golden harvests. It is only when one has felt the stern hand of poverty upon him, when he sees those he loves in want of many things which not only would grace them, and make their lives more delightful, but are almost necessities to their comfort, while his less scrupulous neighbor rolls in riches and enjoys every luxury, it is only then that one understands the trial to which principle can bind him. But with all this trial there is such comfort, such exquisite delight in the remembrance of duty well performed, that he who has tasted it would not exchange it for all the wealth of Golconda, or Peru, or Australia—or for all combined. And still to many such men can I to-day point undistinguished to the cold eye of the world, but well understood and clearly recognized by that Eye which never passes by one who nobly struggles against temptation.

If you ask me for the noblest characteristic of medical men, I know none higher than this. And still the unwitting world asks why, if one wishes for an infinitesimal of an atom, and will trust his chance of life to that; or for water only, as his medicament; or for the crudities of the botanic, why are you not content to let him have them? He takes the responsibility. It is himself alone that can be blamed. No; this is not so. Can I, without fault, stand near a drowning man and try to make a rope of sand because he prefers to be saved by it, and takes the responsibility of his own safety, when I know that a good honest hempen rope will be sure to bring him safely to land; or shall I waste my time in a rough sea trying to launch a birch canoe, in which my greatest exertion only enables me to keep my balance, if even that, when the life-boat hangs at the davits thoroughly manned and safe against any emergency? What though the green landsman thinks a canoe a great deal prettier than a stout boat, shall the sailor permit him to sink

because he is ignorant? No! we must be honest, and if even our friends shall think us absurdly particular, scrupulous beyond measure, let us preserve to ourselves the "*mens sibi conscia recti*." Then tamper not with this bold-faced harlot, in whatever disguise, or however supported she may come to you. To hesitate is to risk the greatest danger, and when you least anticipate such an event you will find your bones and marrow eaten up, destroyed, and testifying against you. Avoid it now, and avoid it always.

One thing more and I have done. In all those departments of our science which in their investigations press farther and farther back to the intimate structure and hidden mysteries of nature, there is ever sought the cause of what we see. By still prying into the hidden secrets we have advanced farther than those who have preceded us, till now our feet stand firm where all to them was thick darkness. From this enquiry as to the cause of everything, and from the sometimes audible answer that it is this or that, there has arisen a tendency, though slight, to a gross materialism. Medical men, as well as other students of nature, have sometimes placed the extreme cause in what is seen, forgetting the great "beginning, means, and end of all things—God." I do not think the charge of infidelity against medical men has been fairly made, especially if we bear in mind the tenets and belief of other classes of educated persons who were cotemporaneous with them. I am sure that such a charge made at the present day, and it is not often heard, could not be supported by facts. Certainly it could not concerning the profession, I mean excluding charlatans and pretenders, in this country. But I think I have observed among those just *entering* upon their studies an inclination, though it is usually transient, to something of materialism. It is not at all unnatural. In pursuing our studies we find our view extending so much farther than we had anticipated, and so much more exact in all its minutiae, that we at first suppose we see everything. In tracing back the causes we come to the last which is within our reach, and forgetting that, we look out into the darkness, we say there is nothing beyond. Still when we have traced back the origin of whatever cell or form of life to its remotest cause, *The Cause* remains, above all and in all.

I do not come here to preach to you, but I wish to suggest to you this source of danger. I shall not hesitate when occasion seems to require it, to refer to the God and Father of us all, as the great cause of all those curious adaptations and disguises with which we shall find our topics replete. I here speak of the danger, so that if any one, from youthful ardor, or impetuosity, or pride of intellect, or any other cause, inclines to wander to the dark and dismal field of skepticism and cold unbelief, he may be warned, that he may not misread the lessons of our science, and that he may not anticipate any aid or comfort from me. If the unbelieving astronomer is mad, much more is the unbelieving physician, and for him there is but one healing draught, that of the crystal waters of the river of life. With fewer words upon this subject I should have done injustice to myself—with more I fear I shall seem to doubt you.

Prosecution for Malpractice, in a case of imperfect recovery from a Dislocation of the Elbow. *Farr vs. Moore*, Grafton county, New Hampshire. The case was tried at the April Term, 1853, before Mr. Justice Woods. H. & G. A. Bingham for plaintiff, C. W. Rand and H. A. Bellows for defendant.

On the 17th day of September, 1850, the plaintiff, a boy nine years old, was running and fell, dislocating the forearm backwards.

Dr. Adams Moore, of Littleton, who lived at the village, nine miles from the patient's home, was called, and arrived about three hours after the injury happened.

He found the joint much swollen and very painful. The arm was easily drawn into place with a slight chuck. On flexing the arm the boy complained very much.

The case was regarded and treated as a simple backward dislocation, with more than ordinary swelling and pain. The swelling and extreme sensitiveness of the boy, and his absolute refusal to inhale chloroform, prevented a minute examination.

The boy was born of a scrofulous mother, whose lungs and

general health had been impaired before his birth, and who died of cancer of the breast. He had a cleft palate ; bore the aspect of a strongly marked scrofulous constitution ; and did not manifest the ordinary degree of mental development of boys of his age.

He was lying on a bed when the dislocation was reduced, and was left there with the arm in a semiflexed position, resting on a pillow, covered with a napkin saturated with cold water. The use of bandages, splint and sling, was considered improper. The application of cold water, with entire rest, was directed. The father was also told not to move the joint for eight or ten days, and then to begin motion without any efforts of the boy.

No request was made to the surgeon to visit the boy again, the surgeon saying it did not appear necessary. The father undertook the care of it himself.

The following night the limb continued to swell, and was quite painful, although the boy took morphine.

In the forenoon of the next day, the father applied to Dr. Burns, of Littleton, the senior physician of that region, who visited the boy with Dr. Moore.

After hearing a history of the case from the friends and Dr. Moore, and examining it as far as he thought proper, he gave it as his opinion that there was no appearance of any existing displacement of the bones ; and advised a continuance of the treatment first prescribed, until the inflammation and swelling should subside ; and if then all did not appear right, to bring the boy down to the village for further examination.

No more was heard from the boy until the seventeenth day after the injury. At that time the father took the boy to Dr. Burns for examination. Dr. Burns looked at it, told the father to ask Dr. Moore to come to his office, at the same time saying that the arm was not right, which observation was reported to Dr. Moore at the time.

He went to Dr. Burns' office, and found the arm capable of only partial flexion and extension. The covering of the joint was thickened and indurated all around. The prone and supine motions of the forearm were perfect ; and no displacement of any bone could be discovered by Dr. Moore. As Dr. Burns

had expressed an opinion conveying the idea that the dislocation had not been perfectly reduced, he was specially requested by Dr. Moore to point out wherein there was any bone in a wrong position. He examined it thoroughly and admitted that he could not discover any displacement. Friction, flexion, and extension of the arm, as forcibly as the boy could bear, were advised.

About three weeks after, the father again brought the boy to Dr. Burns, who sent for Dr. Moore.

No material change had taken place, except the abatement of soreness. The motion of the joint, and the thickening of the integuments, were much as before. The sorest part was in the bend of the arm over the coronoid process, and there the thickening of the parts was the greatest. There was clearly some deep injury. It was proposed to administer chloroform to the boy and make a more thorough examination, which was done next day at the home of the boy. Extension, flexion, and a thorough manipulation for a considerable time were made, but no displacement could be discovered. An internal lateral displacement of the ulna had been suspected by Dr. Moore, who at this time became satisfied that it did not exist. A fracture of the coronoid process was supposed to be possible, but the rigid state of the parts prevented any satisfactory conclusion. Nothing new was advised, but to continue the treatment last recommended. The father had become dissatisfied, and was talking about his right to damages. About six months after the injury, the boy was presented to Dr. Dixie Crosby, Professor of Surgery in Dartmouth College, who was then at a railroad depot, waiting the arrival of the train, and had not time for a deliberate examination. He made an examination, and suggested that the ulna might be displaced inwardly; and soon found from the father that he was after an opinion for the purpose of sustaining a suit. He told him decidedly that he had no reasonable ground for such a claim.

On reaching home, Dr. Crosby wrote to Dr. Moore, stating what had transpired, and advising a careful examination in relation to an internal displacement of the ulna, which he was inclined to think might be found. As such an examination had already been made, while the boy was insensible to pain, the examination was not repeated.

About this time two suits were instituted against Dr. Moore. One in the name of the boy, by his father as guardian, on account of the loss of the use of his arm; and one by the father, for expenses and loss of the service of the boy; both claiming heavy damages.

Dr. Burns was not included. The opinion he had expressed might be of service in evidence.

About a year after the accident, Dr. Burns was called by the plaintiffs to depose as to his knowledge of the matter and the present state of the arm.

He stated then that "the bones don't appear to be in the proper place"—"it" (the arm) "is very much enlarged about the joint"—"the appearance is that the joint is not in its proper place."

On cross-examination he was requested to point out any bone connected with the joint, which was not in its natural position. To this he replied that he "did not know as he could."

At this time there was a slight crackling in the joint, when moved; and the arm could be bent to nearly a right angle with the upper bone.

Dr. Burns afterwards, from a more careful examination of the subject in reference to there having been a fracture of the coronoid process, entirely changed his opinion of there being any unreduced dislocation.

About two years after the accident, Dr. C. M. Tuttle, of Littleton, went and examined the joint, and compared the appearances with those of the case of Sir Astley Cooper, as described in his book, and came to the conclusion that it was an injury of that kind; and that the recovery in this case was as good as that is represented to have been.

About the same time, Dr. E. R. Peaslee, Professor of Anatomy, &c., in Dartmouth College, was called upon by the plaintiffs to examine the arm and testify as to its condition.

After a careful examination of the boy alone, he stated that the following was the condition of the limb:

"I find some difficulty at the elbow joint. In the first place there is a defect in extension; secondly, there is a defect in flexion (the arm not being bent beyond about at a right angle); thirdly, there is some deformity at the joint; fourthly, the ulna

is somewhat displaced backwards ; fifthly the radius is also slightly displaced ; sixthly, the head of the radius is enlarged." The displacement of the radius is "backwards and downwards, being slight," and that the head of the radius was "very near on its natural articulating surface, but not precisely;" "that he could discover no lateral displacement of the ulna." He said that a partial dislocation of the radius backward, was not an accident recognized by surgeons as he was aware, unless complicated with a fracture of the coronoid process ; and that in this case it was "altogether probable that the coronoid process had been broken ;" and that the boy bore the aspect of a highly scrofulous constitution.

Soon after this the boy was taken by the father, accompanied by his counsel, for an *ex parte* opinion, to Dr. J. P. Bancroft, of St. Johnsbury, Vermont. Dr. Bancroft says he made the examination and declined giving an opinion until he had time to refer to his books, which he did, and came to the conclusion that it was a case of fracture of the coronoid process ; and that he never had had experience in such a case. He also said that a scrofulous diathesis was a serious impediment to complete recovery in injuries of joints.

The physicians already named gave depositions out of court to be used on the trial.

Also, Dr. E. Lyman, of Lancaster, who had been in practice fifty years, was applied to by the plaintiffs. He had examined the arm a few months after the injury, and also examined it when he gave his deposition about a year after the accident. He, without hesitation, called it "a case of bad surgery ;" said the ulna was in place, but that "the radius was thrown off, as he conceived it."

The trial in court was a long one ; nearly a week was spent in presenting the testimony to the jury. Preparation was made to appeal to the sympathies of jurors. The boy-plaintiff appeared with his counsel accompanied by his young married sister with a nursing child, unattended by their father.

The plaintiff in his opening took the position that the defendant had made a mistake in supposing at first that the case was one of simple dislocation : and also that in treating it as such, he had not proceeded right, in not applying bandages, splints,

and a sling; and securing the arm bent to a right angle with the humerus.

Another point was that he had made another mistake in altering his mind and thinking that it was complicated with a fracture of the coronoid process; and undertook to prove that the original accident was a fracture of one of the condyles. Another point was that the defendant had neglected the boy because his father was poor and did not pay his doctor's bills.

To sustain the two first positions, he asked leave to introduce the book of Sir Astley Cooper on "Fractures and Dislocations." The defendant waived all legal objection to the use of the book; and the court allowed either party to read from the book such parts as he chose, thus making Sir Astley Cooper a witness in the case for the plaintiff.

The counsel for the plaintiff then read Sir Astley's directions for treating a simple backward dislocation of the forearm; after reduction "to bandage the arm in the bent position, the limb to be supported in a sling; the forearm to be bent rather less than a right angle with the upper arm; a splint placed in the sling for the better support of the limb." Nothing of this sort was done in this case.

The plate of Sir Astley, representing such a dressing, was exhibited from the book to the jury.

On the second position that the original injury was a fracture, he read the remarks that oblique fractures of the condyles are often mistaken for dislocations, and happen more frequent in children than in persons of advanced age; and as an evidence of a fracture which had never united, he exhibited the crackling sound in the joint as crepitus of bones; and that such an injury could not be properly treated without bandages and splints.

On the third point the saying of the defendant at the time of his first visit that he did not think it necessary to come again, was evidence of indifference and neglect.

The first of these allegations, "that the case was taken at first to be one of simple backward dislocation," was not denied by the defendant, but he contended that he had good reason to suppose it was so; a fracture of the coronoid process being an exceedingly rare accident, that Sir Astley Cooper, in all his

immense practice, had noticed it only once, and that in a patient sent him from the country ; and in this case it was impossible to discover such an injury at the time, without a handling too severe to be justified.

As to not using bandages, splints, a sling, and confining the arm in a bent position ; he said they were not essential to a good recovery in a simple backward dislocation of the forearm, and were used only as contributing to the comfort of the patient in carrying the limb ; and further, that in all cases where surgeons direct their use, it is understood that there is no great degree of inflammation ; that in highly inflamed limbs they would be injurious. The 261st case from the plaintiff's book was read, where Sir Astley Cooper, after reducing the dislocation, laid the arm on a pillow, with a poultice—inflammation supervened—in four days the integuments from wrist to shoulder became gangrenous, and the patient died the same evening.

The plaintiff himself proved that the boy's arm swelled above and below the elbow, and "shined like a glass bottle."

The defendant contended that after reduction, followed by severe inflammation as in this case, the inflammation became the paramount disease ; and that Sir Astley's book on "Fractures and Dislocations" did not treat specially of "Inflammation."

Dr. Hibbard, of Lisbon, explained to the jury the proper treatment in such cases, and the great danger of compressing inflamed parts by splints and bandages.

In answer to the noise in the joint being evidence of a fracture ununited, Dr. Morgan, of Haverhill, testified that it was common in cases of injured joints, and very different from crepitus. He also read to the jury out of the plaintiff's book that "sometime after the accident" (dislocation) "it frequently happens that a sensation of crepitus is produced by effusion of adhesive matter into the joint, and surrounding bursæ ; the synovia in which becomes inspissated, and crackles under motion. But every practitioner ought to be able to distinguish this crackling from the grating crepitus of fracture." Also that "the degree of inflammation which succeeds to these accidents is generally slight ; but in some cases it is very considerable, and produces great tumefaction, which added to that re-

sulting from extravasation of blood, frequently renders the detection of the injury exceedingly difficult."

Dr. Crosby was called before the court and requested to examine the arm, to enable him to testify. He declined making any examination for the purpose of obtaining knowledge to enable him to testify, but was ready to answer all questions so far as his present knowledge should enable him; unless the court was of the opinion that the law required him to make an examination for that purpose. The judge ruled that physicians are required by law to do so, as an expert would be required to look upon a bank note and say whether it is genuine.

Dr. Crosby then made the examination, and stated that the limb bent much better than it did when he first examined it, about two years before. He thought the difficulty might be owing to the rigidity of the ligaments; that he could not satisfy himself that there was any displacement of the bones of the forearm; that there was no evidence of any fracture of a condyle; could not tell whether there had been a fracture of the coronoid process—regarded it to be very difficult to detect a fracture of that process in a case of dislocation; could not tell what caused the stiffness of the joint; had thought on his first examination, and thought now that the articulating end of the humerus, the trochlea, might have been broken, and thought the deformity might be accounted for in this way better than any other. He had never found a fracture of the coronoid process, still it might exist here. He thought the reduction of the dislocation had been properly made.

The physicians all testified that rest and cold evaporating lotions were the main elements in treatment of dislocations after reduction of the forearm. They also testified that fractures of the coronoid process were very rare, no one having recognized that accident in his practice; and further, that recovery after it would probably be always imperfect, it being generally believed that union between the broken fragments would be by ligaments, if at all.

Dr. P. Spalding, of Haverhill, testified that the arm above the elbow was three-fourths of an inch enlarged. The head of the radius appeared a little raised; that when the arm was extended the olecranon was carried from the external condyle of

the humerus about one-half an inch, and yet the distance from the olecranon to the extreme point of the internal condyle was the same in both arms; that the condyles of the humerus by admeasurement were precisely the same as to their extreme points; and that the arm when extended seemed to permit a straight elevation of the olecranon from the fossa of the humerus; that pronation and supination of the radius were perfect; that when the arm was nearly extended the tendons of the biceps and brachialis muscles were put to the utmost stretch; and that when the arm was flexed to a right angle, the ulna seemed to come in contact with a solid substance in the hollow of the arm, so as to prevent entirely any further flexion.

He gave it as his opinion that there had been a dislocation of the elbow backwards, together with fracture of the coronoid process of the ulna; and suggested that the broken point had adhered to the trochlea, and had not united with the ulna.

As to negligence on the part of the surgeon, the plaintiff, in his zeal to make the time as short as possible between that of the accident and the arrival of the doctor, made it appear that the surgeon rode from his home to that of the patient, nine miles, over a rough, uphill road, in one hour (which was really straining the truth, but it showed no lack of promptness on his part). The defendant also offered to show the declaration of the father that he believed Dr. Moore did the best he could, and that he never charged him otherwise; that all he blamed him for, was that he would not acknowledge the arm wrong when Dr. Burns said it was, and he must have known it was. To the admission of this testimony the plaintiff's counsel objected, the boy being the party to the suit, and not the father. The judge was not clear that it was proper, and the defendant's counsel thought it best not to put it in, as it might operate to set aside the verdict, in the event he obtained it.

The judge in his charge to the jury observed that the having a bad arm is not a light matter, and that the reputation of this defendant is also not a light matter.

The plaintiff alleges that he procured the attendance of Dr. Moore, that he did not set the limb properly, that he did not bandage the arm, or treat it properly afterwards.

The defendant alleges that there was a dislocation back-

wards, which he supposed to be simple, but finally found to be complicated with a fracture of the coronoid process, or of the trochlea of the humerus.

That at his first visit appearances did not require him to visit it again, that splints and bandages were not proper—that the inflammation was such as would have made them injurious.

That a fracture of the coronoid process, or of the trochlea, is never followed by a perfect recovery. That there were depositions within and around the joint, caused by the inflammation; and that the stiffness consequent upon these deposits may and very probably is an important part of the difficulty.

There is no doubt that the boy is incurably lame, but from what cause does it arise? If the surgeon exercised reasonable care and skill in the case, he is not liable. He is not obliged to guarantee a perfect cure.

It is charged that he was negligent. If he supposed it to be a simple dislocation, and that it was reduced, was there any necessity of his going again? Was it proper that he should direct to bring the boy down to the village, when the inflammation had subsided? Does the fact that he went there in one hour show that he was prompt and attentive? and the fact that he took Dr. Burns, an old and experienced physician, with him, show that he was careful, and wanted to treat it carefully?

You are to decide whether the permanent lameness of the plaintiff is caused by the fractures or deposits, or by the want of skill and care on the part of the surgeon.

The jury, after deliberating a long time, reported that they could not agree, and were discharged. It was rumored abroad afterwards that they stood three for plaintiff and nine for defendant. It was further said that two of the minority would agree with the nine for the defendant, if the *one* would. Before the next term of court, the plaintiffs became nonsuit by agreement.

Some of his medical brethren expressed a wish at the time of trial to know the defendant's own opinion in regard to the real nature of the injury, as he carefully avoided expressing any that might at all influence theirs, while the matter was undergoing a legal investigation. His opinion is based on the four following facts, three of which were unknown to them :

1. The bones of the forearm were drawn into place with more ease than was expected—the chuck as they slipped into place, though distinct, was less so than usual, but did not raise the idea of a fracture, at the time.

2. The bending of the arm caused a considerable increase of pain; the limb being much swollen and the boy very sensitive, this was not regarded as evidence of a fracture.

3. There was for a considerable time not only a very decided thickening of the integuments directly over the coronoid process, but the tenderness at that point was greatest.

4. When the arm is flexed the ulna and radius seem to be in place; when extended, the point of the ulna strikes a little back and to one side of the posterior fossa, showing a slight backward slipping, for the want of a full support of a perfect process in front, and drawing the radius with it, the circular ligament probably being not broken.

That the broken point of the coronoid process has adhered to the front of the trochlea, or some solid growth thrown out there, against which the remainder of the process strikes on flexion, appears to him very probable.

When driven to a careful investigation of the subject of fractures of the coronoid process, the defendant was led to notice the two following statements in standard surgical works, which are calculated to mislead, and may be seized upon by plaintiffs' counsel to operate on the minds of jurors:

Mr. Fergusson in his "Operative Surgery," says of backward dislocation of both bones of the forearm, "In such a case the coronoid process will *probably* be broken." This was urged in the trial by plaintiff's counsel as contradicting the medical testimony, and charging a conspiracy on the part of the doctors to defeat the ends of justice, in saying that the accident was very *rare*.

One other case came to the notice of the defendant, but not to the plaintiff's counsel:

Dr. Dorsey in his Surgery, says that Dr. Physick once saw a case of fracture of the coronoid process; that the forearm was kept fixed at a right angle with the humerus, and the tendency of the brachialis muscle to draw up the superior fragment was

counteracted in some measure by pressure of the roller above the elbow, and "that a *perfect cure* was *readily obtained*."

In the first, perhaps the word "possibly" has given place to "probably."

In the latter, it may well be doubted whether the case is fairly represented by Dr. Dorsey, it not having come within his own observation.

A. MOORE.

Littleton, N. H., 1855.

PART III. — PROCEEDINGS OF SOCIETIES.

SMYRNA HOSPITAL MEDICO-CHIRURGICAL SOCIETY.

Dr. Chasseaud, of Smyrna, exhibited a specimen of fibrous polypus of the uterus, removed from a woman, 50 years of age. It was of seven years' growth, about the size of a cocoa-nut, of a flattened, globular form, and had been attached to the inner surface of the uterus by a very small peduncle. It consisted principally of a firm fibrous stroma, and had been covered by the mucous membrane of the uterus. *Dr. Chasseaud* considered that it exemplified the manner in which these growths were formed, first among the muscular fibres of the uterus, and then gradually pushing the mucous membrane before them.

Mr. Holmes Coote had dissected a great many uteri, in which these growths had been observed, and agreed with *Dr. Chasseaud's* view as to their pathology. In some cases, they might be felt as hard lumps in the walls of the uterus; in others, they gradually projected externally, and became covered with a layer of peritoneum, until at length they might be more or less pedunculated and loose; or they might project internally, and become covered by the mucous membrane lining the organ, as in *Dr. Chasseaud's* case. He had seen one case, in which removal of such a tumor by torsion had been followed by very alarming symptoms.

Mr. Holthouse referred to the inutility of any measures other than operative for the removal of fibrous tumors in other parts of the body; but he was not so sure that the rule applied to these tumors when seated in the uterus. He attended a lady about a year and a half ago, who had a large tumor, supposed to be fibrous, imbedded

in the posterior wall of the uterus, and projecting into the vagina. She was the subject of repeated and violent uterine hæmorrhages. Dr. Locock, who was called in, recommended the application of leeches to the part, to be repeated at short intervals; small doses of the bichloride of mercury were also prescribed. The lady subsequently went to Paris, where the leeching plan was still pursued, and lately returned to England quite recovered. These tumors sometimes cease to grow, and undergo calcareous degeneration. A very fine specimen of such a tumor Mr. Holthouse recollected to have seen at the Pathological Society of London.

Mr. Spencer Wells had assisted Dr. Wood in the removal of this tumor. He (Mr. Wells) could not reach the uteri with his finger, and accordingly introduced his whole hand into the vagina, and found the pelvic cavity nearly filled by the tumor, and the os uteri just above the promontory of the sacrum, the small peduncle being attached within the cervix. He was enabled to twist the tumor three times round on its axis, and thus to break off the peduncle, when Dr. Wood introduced a pair of midwifery forceps, and removed the tumor, the perineum requiring as much support as in a case of labor. He (Mr. Wells) thought it was well understood that fibrous tumors of the uterus frequently disappeared under treatment. He had seen two cases himself, in which they had done so under a course of the Kreuznach waters, and had been told of others by Drs. Simpson and Rigby. He had also seen a case, with Mr. Baker Brown, in which the tumor had diminished very much under the use of the common formula of bichloride of mercury and bark, and Mr. Brown had told him of other similar cases.

Mr. Hulke believed that if these tumors were left to themselves, they frequently disappeared spontaneously, or perhaps as frequently became calcified. In one case he related, what was supposed to be a large vesical calculus was found in a churchyard, but it proved to be a calcified fibrous tumor of the uterus.

Dr. Chasseaud said that a remedy in popular use in Asia Minor was a sort of calcified sea-weed, which probably owed its virtues to the same principles as the Kreuznach waters, iodine and bromine. At the suggestion of Dr. Cullen, he promised to bring some specimens to the Society for analysis.

Mr. Atkinson then exhibited a vesical calculus of peculiar shape, which he had recently removed by lithotomy from a Jew, aged 20. No section had been made. The patient had complained of symptoms of stone in the bladder for nine years, which at length became

so urgent that he could not stand erect, and he suffered continually from severe pain. A stone was felt on sounding, occupying the prostatic portion of the urethra, and when the sound passed this, what appeared to be a second stone was felt in the bladder. The stone was found impacted in the prostatic portion of the urethra on three subsequent occasions, and some difference of opinion existed as to there being more than one stone, most of those who examined believing that there was only one. The stone was in the bladder on the day of operation. The ordinary lateral method was that adopted. Nothing unusual occurred during its performance, except that the stone eluded the blades of the forceps, and Mr. Atkinson removed it by using his forefinger as a scoop. The patient has since gone on favorably.

Mr. Holmes Coote, after some remarks on the different modes of performing lithotomy, and on a recent proceeding of Mr. Lloyd's, in which that gentleman cut in the mesial line, at once laying the urethra and rectum open together, a proceeding the results of which Mr. Coote did not speak of as very encouraging, inquired with what kind of knife Mr. Atkinson had cut into the bladder?

Mr. Atkinson replied, with an ordinary sharp-pointed scalpel.

Mr. Spencer Wells said, that many years ago, at St. Thomas's Hospital, Mr. Tyrrel, a most careful and dexterous lithotomist, had cut through the back of the bladder, and the consequent extravasation of urine into the peritoneal cavity had killed the patient. Mr. Tyrrel then observed that this case would teach him never again to cut into the bladder with a sharp-pointed knife, and he never did. The case and remarks made such an impression upon his (Mr. Wells's) mind, that he determined to act with similar caution, and he was more and more convinced every year of its necessity. Only last year a surgeon of one of the largest of the London hospitals had made this fatal error twice within the course of a few months; and Mr. Wells contended that, however skilful or experienced a man might be, he was not justified in running a risk which might be avoided by simply changing the knife with which the first incision was made, and the urethra opened with a blunt-pointed one. All danger from sudden, involuntary movement of the patient or assistants, or sudden contraction of the bladder, was thus avoided.

Mr. Hulke said that the danger of transfixing the bladder depended more on the staff than the knife. If the groove were deep, and the extremity buttoned, the operator could scarcely go wrong. Cheselden, Liston, and Fergusson, were all in favor of using a scal-

pel, and their authority was quite sufficient to outweigh any objections which the practice of careless surgeons might appear to enforce.

Mr. Eddowes said that *Mr. Liston* was so strongly impressed with the necessity of keeping the knife firmly pressed in the groove of the staff, that he did so with such force as in one case to break the knife.

Dr. McCraith showed four specimens of calculi which had been successfully removed by *Dr. Wood* himself. He did not think the disease very common in Smyrna.

Mr. Holmes Coote then related two cases of superficial malignant disease of the face, and made some remarks upon the relations between lupus and superficial cancer. He had lately treated two cases of serious ulcerative disease of the face in two officers who had been exposed to the severe heat of the sun in the Crimea. The disease was termed "*Lupus exedens*," but it presented many of the characteristics of epithelial cancer. In one case, seen at the commencement, there was rapid hypertrophy of the papillæ of the skin of the face near the root of the nose, raising the epidermis into a pimple in a spot which had been sunburnt. Heat and redness extended to the neighboring part of the nose and cheek, and was followed by the development of fresh pimples or tubercles. Then the epidermis became thin and peeled off, or burst, a small quantity of sero-purulent fluid escaping and drying to a scab, under which ulceration commenced and rapidly destroyed the hypertrophied papillæ, leaving a deep sore, with irregular surface and foul aspect, bounded by a sharp, irregular, undermined edge, which was frequently red and swollen, especially when the disease was spreading. As remedies began to prove effectual, the raised papillæ became shrunken and bloodless; a thick scab formed over a depressed cicatrix, and in a few days this part had healed; but when, in a later period, there was deep ulceration, the process of granulation and cicatrization was tedious. In the second case the disease was greatly advanced before the officer fell under *Mr. Coote's* care. Ulceration had crept over the surface of the entire right cheek, which presented an irregularly depressed reddish cicatrix surrounded by deep unhealthy ulceration, which threatened the eyelid above and the mouth below. No caustics or any local irritant were used in either case. In both, arsenic was given combined with bark, and the result was most successful. *Mr. Coote* referred to cases of a similar nature he had seen in London, among patients who had returned from hot climates, and entered at some length into the question of the relation between such forms of malignant ulceration and cancer, expressing his conviction that there

is no form of cell peculiar to cancer, and that the microscope alone is not sufficient for the diagnosis of a cancer cell. He concluded by expressing his opinion that as these cases had proved impracticable in the Crimea and at Constantinople, and had improved immediately after their arrival at Smyrna, the facts should be known in addition to the many others proving the salubrity of the air of a place which had been unjustly abused.

Mr. Spencer Wells inquired of the resident practitioners present as to the nature of the disease known as the "Aleppo Button." He had seen one case in consultation, in a gentleman returned from Aleppo, which was nothing more than ordinary lupus of the face in the tubercular stage.

Dr. McCraith said the few cases he had seen did not resemble lupus. In the first stage a hard subcutaneous swelling, like a boil, formed in various parts of the body, the surrounding cellular tissue being thickened, and constitutional disturbance very slight. This usually went on for about a year, and then ulceration commenced, which, though very obstinate for a time, ended by granulation and cicatrization. In this and other forms of obstinate superficial ulceration he had found arsenic very useful, more especially if applied locally. He kept a piece of lint on the part, wetted with Fowler's solution, either pure or diluted, until it produced no smarting.

Dr. Chasseaud said the Aleppo Button was quite a distinct disease. Very few European residents at Aleppo escaped it, and it was attributed to the water of the river which supplied the town. The scab which formed when ulceration commenced, from drying of the exuding pus, resembled that of rupia.

Mr. Holmes Coote said that these descriptions tallied remarkably with a disease called the "Scinde Boil," which had been very troublesome in Sir Charles Napier's army. He had seen several cases in England, among officers who had returned from that army, and the water of the rivers in Scinde was blamed as the cause of the disease.

Mr. Hulke said that there was a great tendency to tumors and diseases of the skin among the residents of Smyrna. He had seen several examples of cheloid and of tumors of cicatrices, and others of tubercular lupus, or epithelial cancer. He had treated the latter with great success by the free use of the nitrate of silver locally, without any constitutional treatment.

The *Chairman* did not consider that Mr. Coote could fairly attribute the recovery of his patients to the salubrious climate of Smyrna.

He was disposed rather to conclude that the arsenic should be praised for the cure, and related a case of seven years' standing, in London, in which this mineral had proved successful in his hands, a great variety of other remedies having been previously tried by other practitioners, and failed.—*London Medical Times*.

PART IV.—CHRONICLE OF MEDICAL PROGRESS.

Whooping Cough, its History, Nature, and Successful Treatment. By
LAURENCE TURNBULL, M.D., &c.

This disease has been to me one of much thought and considerable personal interest, from having had four of my children attacked with it in its most aggravated form. My attention was also particularly called to it during the months of May and June, 1854, when the malady prevailed to a considerable extent in our city; cases of it have also continued to occur up to the present month, July, 1855.

In referring to the works of Hippocrates, (Sydenham Society's Edit. in two vols., London, 1849,) I find no description of whooping cough, neither is there any account of it in the Seven Books of Paulus Ægineta,* so that I would infer that the Greeks, Romans and Arabians were not acquainted with it as a distinct disease.

Dr. Willis was the first medical writer who accurately described whooping or chin cough, his work being published in 1682, (in two vols.)† It was not until the present century, however, that this disease was fully investigated and made known to the medical public, which was chiefly done by the labors of Rosen, Cullen, Schæfer, Hufeland, Mathai, John, Authenrieth, Watt of Glasgow, and Albers of Bremen. It is stated by Rosen, that it passed from the East Indies and Africa into Europe.

First stage.—The first stage of whooping cough has no distinct and prominent symptoms by which it can be distinguished from ordinary catarrh, or bronchitis, except, perhaps, a slight difference in the voice and cough which sounds louder and shriller; the expectoration is

* The Seven Books of Paulus Ægineta, translated from the Greek, by Francis Adams, LL. D., in three vols., London, printed for the Sydenham Society, 1844.

† "*Tussis puerorum convulsiva, sive suffocativa et nostro idiomate chin-cough vulgo dicta.*" (Opera Omnia, Amst. 1682, vol. ii. p. 169.)

usually limpid, but in some instances I have noticed it opaque, yellow, and even greenish.

This period may last from five days to as many weeks. Lombard states that in an epidemic which occurred at Geneva, it lasted from one month to six weeks; when the whoop is going to occur, it is usually noticed in the second or third week, but I have had several cases where the cough was present without the whoop.

This absence of the whoop is often very unfortunate, for children may in this way propagate the disease, and cause whole families and even schools to be attacked. This fact was proven in the case of my son, aged seven years; he sat in school by the side of a little boy who had a cough, which was very sonorous and painful to listen to, but the anxiety of the teacher was much relieved by being informed that his physician did not consider it whooping cough; subsequently the youngest child of this family was attacked by the disease and hooped, and the boy was then kept from school, but too late to save the other members of his class, ten of whom took the disease, so that the school was nearly broken up; my son communicated it to his three sisters, who all suffered more severely from it than he did.

I therefore think that children should not be allowed to mix with their companions when suffering from a cough of this character, if the disease prevail in the locality.

Second stage.—The second or spasmodic state of this malady, is easily known, by the peculiar sound and suffocating character of the cough. In this stage, almost every organ is irritated, and it even produces discharges of blood from the nose and mouth. The expression of the countenance is most distressing. When this stage is at its height, the child seems to know by some inward sensation that the attack is coming on, and it either cries or lays hold of some object by which it can support itself until the paroxysm is over. The face and neck become swollen, and in some instances remain so, and the child, at the termination of a fit of coughing, either discharges some thick tenacious ropy mucus, or evacuates the entire contents of the stomach.

The least mental excitement, either of joy or sorrow, will produce an attack, and the number varies with the severity of the disease. The paroxysms last from one-fourth to three-fourths of a minute.

The average duration of whooping cough is from six to eight weeks if not checked, but in many instances it lasts as many months; second attacks are rare, and yet they do occur. Whooping cough prevailed in this city with measles, in May and June, 1854, followed in October and November by chicken pox, and in January, 1855, by

scarlet fever, with sporadic cases of catarrh and croup, showing a connection or relation one with another, so that the same causes may give rise during an epidemic to simple catarrh, croup, whooping cough, or even measles.

The complication of whooping cough I cannot enter into, but the chief of them are croup, bronchitis, pneumonia, pleurisy and diseases of the brain and cavity of the abdomen, which are to be recognized by their characteristic symptoms.

According to Billard, post-mortem examinations have not revealed anything uniform in this disease, except bronchial catarrh in its various stages.

Sydenham imputed the disease to a subtle and irritating vapor in the blood. Hufeland considers that the eighth pair of nerves is diseased, and is the cause of the double irritation of the bronchia and stomach. According to M. Guersent (*Dict. de Méd.*) whooping cough is a catarrhal affection, seated in the trachea and bronchi, consisting of a specific inflammation, accompanied with spasm of the trachea and glottis. Dr. Watt, of Glasgow, considers the disease to be inflammatory and seated in the bronchi. Albers, of Bremen, considers whooping cough to be an affection of the nerves of the thorax, with which bronchitis is frequently complicated. Laënnec regards it as a variety of pulmonary catarrh, and from the convulsive character of the cough he calls it convulsive catarrh.

Dr. Webster (*Med. and Phys. Jour.*) is of opinion that the symptoms, when closely viewed, suggest the impression that whooping cough depends upon inflammatory irritation of the brain or its membranes. This is the opinion held by Dr. Copland, and very many distinguished men of the present day, but to my mind it is not satisfactory. The whooping cough, in its first stage, is certainly of an inflammatory character, chiefly affecting the lining membrane of the air passages, but this is of a specific nature. In the second stage there is no evidence of inflammation indicated either by the pulse, skin, or any other organ, but there is a powerful irritation of the laryngeal constrictor, and bronchial muscles and nerves, producing a cough which occurs rapidly many times so that a single inspiration is followed by five or six successive expirations constituting paroxysms of coughing (*tussis accessus*), accompanied with redness of the face, watery eyes, headache, *tinnitus aurium*, fulness of the cervical veins, retching and sometimes vomiting.

By some writers it has been considered that this disease was produced by a peculiar miasma, acting chiefly on the nerves, and is also

ascribed to the presence of minute insects in the air (Boehme—Linnaeus), or, according to Prof. J. K. Mitchell, its epidemic origin may be a peculiar fungus; "the spores of these plants are not only numerous, minute, and indefinitely diffused, but, like the animal, all have the power of penetrating into and growing upon the most interior tissues of the human body," passing into the systems of those exposed to its influence by the respiratory organs or stomach, producing the irritation of the mucous membrane of the air passages. "Introduced into the body through the stomach, or by the skin or lungs, cryptogamous poisons are known to produce diseases of a febrile character, intermittent, remittent and continued—and even the disease of the mucous membrane, termed aphthæ, arises from the presence of minute fungi."*

Dr. M. has not made this application of his doctrine to this particular disease, yet I do not see any good reason why it should not be so applied. According to Dr. Spengler, of Ellville, epidemic diseases depend on the presence or absence of ozone. He states that in the village of Roggendorf, in Mecklenburgh, towards the close of 1846, when slight catarrhal affections became prevalent, but slight traces of ozone were to be detected in the air. With the opening of the following year, however, these catarrhal affections assumed the severest forms of tracheal and bronchial disease, and whooping cough became common both among children and adults; then reagents detected a great increase of ozone in the atmosphere.†

Prognosis.

The prognosis in uncomplicated whooping cough is very favorable, and is unfavorable only in proportion to the dangerous nature of its complications and the age of the child; the best season for a favorable termination is spring or summer.

The modes of Propagation.—The disease may occur epidemically or sporadically, and it possesses infectious properties. It is propagated through a family from one to another; they are not all apt to be attacked at the same time, and by removal to a distance a child may escape. Dr. Cullen believed that it disappeared in from four to six weeks, but this has not been proved by subsequent observation. Children who have suffered from this disease, should not be sent to school or play with their companions for at least two months.

* Lond. Med. Gaz. Henlie's Zeitschrift, vol. vii. p. 1.

† On the Cryptogamous Origin of Malaria and Epidemic Fevers. J. K. Mitchell, M.D. Philada. 1849.

Treatment.—There are but two classes of symptoms to be combated in this disease when no complication exists. The inflammation must be reduced by depletion, expectorants and refrigerants. In the second class of symptoms, the chief object is to diminish the abundant secretion and allay the great irritability of the laryngeal constrictor, and bronchial muscles and nerves.

The means to accomplish this, in my hands, have been the abstraction of blood; the application of a few cups or leeches to the nape of the neck or under the clavicle, with counter irritation, by means of sinapisms and blisters, which will soon allay the congestion of the brain or lungs. To diminish the febrile action small doses of tartar emetic, combined with Dover's powder or prepared chalk, with the free use of syrup of ipecacuanha as an emetic may be given; these will lessen the bronchial inflammation, and remedy the often disordered state of the stomach and bowels.

During the whole stage of the disease, demulcent drinks should be freely administered, such as flax seed tea, barley or rice water. When fully satisfied that the inflammation has been subdued, indicated by a slower pulse, less heat of skin and no active congestion of the brain or lungs, I have then followed the treatment with belladonna, and my success with this remedy has been most gratifying. Before administering it I tried, in vain, the free use of cochineal in combination with alkalies, assafoetida, opium, alum, hydrocyanic acid, &c. In every instance in which the system was fully brought under the influence of the belladonna, indicated by dilatation of the pupil with confused vision and reddened skin, I was enabled to check the annoying cough and hoop of thirteen children during the months of May and June, 1854, and seven cases since that time, making twenty cases in all, eight males and twelve females; the youngest was nine months and the eldest ten years.

The following was the method followed: The system being prepared by reducing the inflammation by the means before spoken of, obtain, if possible, English extract of belladonna, fresh and good; let the extract be triturated with water or simple syrup; if it is to be kept for some time, add a small quantity of alcohol. The dose for a child three months old is the sixteenth of a grain every three hours, to a child one year, one eighth of a grain, and so to other ages in proportion.

Inform the parent or nurse of the change it will produce upon the eye, also that it may redden the skin. When full dilatation of the pupil is brought about, the medicine is to be intermitted until it has

gone off again ; the belladonna is to be administered in slightly increasing doses, so as to keep the child under its influence for several days or until the paroxysms are checked, which will usually occur towards the sixth or eighth day of the second stage.

In the twenty cases cured by the use of the belladonna the cough and whoop returned in a few cases on exposure to cold, or in disagreeable, windy weather ; but by combining the extract with syrup of ipecacuanha a few doses soon checked the cough and whoop ; in only one case out of this number was it complicated with inflammation of the lungs and this case recovered.

The average duration of my twenty cases was ten days after the whoop had commenced, when the case was free from complications, which shows the great advantage of this treatment. The ordinary duration of the disease, when treated in the usual manner, is from 1½ to 3½ months ; even by prussic acid, or the application of nitrate of silver, the average given is from two to three weeks. It is stated by Dr. Gibb that, with the use of nitric acid, the average duration was only six or seven days. Several physicians who have used this remedy, however, do not find such favorable results from its use.

I have added to my communication some extracts from the experience of a few distinguished medical men on the use of this important agent, belladonna.

This remedy was used in whooping cough about the year 1783, by Dr. Buckhaave, of Copenhagen, who gave the powdered root in doses of two grains, morning and evening, to a child of five or six years of age. The cure, it is stated, was generally accomplished in from seven to fourteen days.*

Dr. Miquel, (of Neuerhaus), says the belladonna is a remedy upon which he can always depend in this disease. In the course of many epidemics which he has observed during fifteen years, he has constantly cured the cough in eight days.†

Dr. Samuel Jackson, of this city, late of Northumberland, who although he was not the first to employ the belladonna, yet by his valuable publication in 1834 brought its virtues prominently before the medical public, has continued its use for twenty years, and his confidence in it powers to arrest the paroxysm and cure the second stage of whooping cough in the great majority of cases is undiminished.

* Dr. Duncan's Commentaries for 1793, and Dr. Gibb on Pertussis, p. 282, 1854.

† Vol. vii. Amer. Jour. Med. Sciences, p. 524, from Archives Generales, August, 1830.

Dr. Hiram Corson, formerly President of the Medical Society of the State of Pennsylvania, a distinguished practitioner of Montgomery county, Pa., in a paper on the efficacy of belladonna as a remedy in Pertussis, published in the *Amer. Jour. of Med. Science*, for Oct. 1852, makes the following observations: "My experience in pertussis had satisfied me that of all the remedies in common use, those recommended by writers upon diseases of children are almost useless. Children affected in the winter continued to cough and strangle and suffer for many weeks with scarcely a perceptible amendment. It was painful to visit and mortifying to prescribe for those afflicted with this malady."

He commenced the use of belladonna in four cases, and in one week they were all well. His method of using it was to begin with the sixteenth of a grain to children under one year every two hours, and increasing a little every day until full dilatation of the pupil occurred, the skin became flushed and vision confused; this he accomplished by dissolving eight grains of the extract in an ounce of water, nine drops of which contained the eight of a grain.

In an epidemic in 1840, he used the belladonna in hundreds of cases with great relief in nearly all. By giving it in small doses at first, the fears of the patients were allayed. In 1847-8, he also prescribed it in numerous cases with much success. He concludes his paper in these words: "During the last seventeen years, I have given the extract of belladonna to hundreds of patients from two months to fifty years of age, and am firmly convinced that it has a greater control over whooping cough, than any other remedy in common use. That while, in a few cases, the system did not seem susceptible to its action in the doses I have prescribed, yet in nearly all the disease yielded quickly. It is a safe and efficient remedy for pertussis in children of any age."

Dr. Eberle, in his *Treatise on the Diseases of Children*, second edition, remarks "that the belladonna has been highly celebrated, and is without doubt, by far, the best article of the kind we possess. My own experience leads me to testify confidently on this point. I have prescribed it within the last six years, (1834), in perhaps twenty cases, and in the majority of them with evident advantage." Professor Borda, he remarks, was the first he believed who used it as a remedy, and his belief in its efficacy is almost unlimited.

Hufeland and Alibert are almost equally decided in their praise of the virtues of this article.

The mortality from this disease in our city in 1850 was 114; 1852,

168 ; and for 1853, was 64. In 1853, in the district of Richmond, it occurred as an epidemic. In severe cases, Dr. Janvier used the belladonna with the best results. "It mitigates the paroxysms better than any other sedative."*

Dr. Condie remarks in his work on diseases of children, that the narcotic from which the greatest amount of benefit is to be anticipated in this disease, is unquestionably the belladonna ; it has been very extensively employed, and the evidence in its favor is strong and conclusive, (by Kahleiss, Janin, Hufeland, Widemann, Raisin, Guibert, Alibert, Schäfer, Laënnec, Müller, Blache, Maunsell and Lombard).

He further remarks that he had given the belladonna a very fair trial, and has, in many cases, been pleased with the prompt and decided relief produced by it, "while in other instances it appeared to exert no influence whatever."

I think that this last remark may be often accounted for by the bad character of the belladonna, which is even found in some of the drug stores in this city, for it is an uncertain preparation unless when procured by evaporation in vacuo, for some samples from some of the Parisian shops were found by Orfila to be quite inert.

Dr. Williams, of London, has used belladonna with great advantage in his practice. He gives it in quarter-grain doses to a child of two years, increasing the dose to double that quantity or more, where it fails to relieve. He remarks that these doses, in general, cause some dilatation of the pupil, and conceives that the remedial agency of the drug depends on the same power to diminish irritability of the bronchial and laryngeal muscles which is here evinced with regard to the iris."†

Dr. G. A. Rees has found belladonna one of the most efficacious remedies in Pertussis.‡

Dr. Waller cured two cases with the twelfth of a grain of extract, three times a day ; prussic acid and conium had failed in affording any permanent relief.§

Eberle assigns the highest place among narcotics to belladonna in whooping cough.

Dr. Churchill says that this is perhaps the most influential narcotic

* Report Phila. County Med. Society, for 1853.

† Gibb on whooping cough, p. 284, from Medical Gazette, Feb. 1838.

‡ Diseases of Children, 2d edition, 1844.

§ Lancet, vol. 1, 1845, p. 137.

and sedative we possess (in pertussis) ; it has been very extensively employed, and the evidence in its favor is very strong.*

Belladonna has been eminently useful in the epidemics of whooping cough which M. Debreyne has observed, but recourse should not be had to it until the inflammatory element has been overcome by leeches, emetics, &c.

Dr. A. T. Thompson says, I have ordered the extract of belladonna in doses of one-eighth of a grain to a child of eight years, and gradually increased the dose to a quarter of a grain. Its power over the cough is extraordinary.†

I might bring forward the testimony of many other writers, and a mass of evidence from medical practitioners, to establish still more firmly the fact of the efficacy of belladonna in this peculiar malady, but it will not, I trust, be necessary.

I will now endeavor to give an epitome of the experience of the best writers in the treatment of whooping cough by means of other agents.

The first of these which I will notice is *alum*, which has been very highly recommended by Dr. Golding Bird ; it has been employed with success by Dr. John F. Meigs, of this city, who speaks of it as follows, in his useful work on the diseases of children : " From reading Dr. Bird's remarks on alum, and prompted by my knowledge of its admirable qualities in the treatment of croup, I was led to make trial of it in the disease under consideration, and I believe I may say that it has exerted a more decided influence in moderating the violence of the disorder, than any remedy that I have ever made use of. I have administered it in fifteen cases, beginning in the course of the second stage.

In all it was beneficial, and in some the effects were strikingly useful, the improvement being more rapid than I had ever seen to result from other remedies." Dr. Bird gives from two to six grains every four hours. His formula is as follows : *R. Aluminis, gr. xxiv ; Ext. Conii, gr. xii ; ‡ Syrup Rhæados, ʒii ; Aquæ Aneth. f.ʒiij. M.* Give a medium-sized spoonful every six hours. Dr. Meigs gives it in smaller doses, and without the *Ext. Conii*. To children under one year, half a grain to a grain three or four times a day ; and to those over that age, two grains every six hours.

* Elements of Materia Medica.

† London Jour. of Med., April, 1850.

‡ This is considered by Dr. Butter as *the* remedy, namely conium, for whooping cough, and he eulogizes its use.

Dr. Crossly Hall, an English physician, employs the *alum* in powder, prescribed in a little water eight times a day, and he considers it a very useful remedy.

Mr. Davis highly extols the efficacy of *alum* in pertussis. In the last edition of Underwood's Treatise, edited by him, he says, "After a long trial, I am disposed to attach more importance to *alum*, as a remedy in whooping cough, than to any other form of tonic or antispasmodic. I have often been surprised at the speed with which it arrests the severe spasmodic fits of coughing; it seems equally applicable to all ages, and almost to all conditions of the patient. The dose for an infant is two grains three times a day; and to older children four, five and up to ten grains may be given mixed with syrup and water."

I have employed *alum* both in the case of my patients and my own children, and gave it freely; it moderated the intensity of the disease, but it did not in my hands make a cure, so that, after its use, for ten days, I had to resort to the belladonna, which in a week completely checked the whoop.

Another agent which has been very highly lauded is the hydrocyanic acid, which is considered by Dr. Thompson, of London, to possess a "specific power" over the disease.

Dr. West, of London, author of a valuable treatise on the diseases of childhood, says, "that the acid sometimes exerts an almost magical influence on the cough, diminishing the frequency and severity of its paroxysms almost immediately, while, in other cases, it seems perfectly inert; and again in others, without at all diminishing the severity of the cough, it exerts its peculiar poisonous action on the system so as to render its discontinuance advisable."

He recommends it to be given by itself, diffused in a little distilled water, sweetened with simple syrup, and the dose he begins with is half a minim every six hours for a child nine months old. He has never but once, however, seen really alarming symptoms follow its use, though he has employed it in many hundred cases; still he remarks that although the severity of the cough may be relieved by the acid, it does not enable the practitioner to dispense with other remedies.

Dr. Hamilton Roe, in his treatise on whooping cough, gives to an infant three quarters of a minim of hydrocyanic acid, Scheele's strength, gradually increasing it to a minim, which is administered every four hours; for a child three years of age one minim, gradually increasing, if necessary, to a minim and a half every four hours. Dr.

Roe says he is convinced, from the result of all the trials he has made, that this drug will cure almost any case of simple whooping cough in a short time. Dr. Edwin Atlee first used it in 1824, and from that year until March, 1832, he says he has treated more than two hundred patients, and never failed to cure in from four to ten days.*

This medicine is highly recommended by Muhrbeck, Kahleiss, Volk, Heller, Granville, Lombard, &c. I have tried this acid, but it did not at all please me in its effects.

Another remedy which demands our notice is the precipitated subcarbonate of iron, (*ferri sesquioxidum*). The following observations on its use are by Dr. H. C. Lombard, of Geneva, who, after praising the virtues of *assafœtida*, flowers of zinc, opium, prussic acid and belladonna, says, "I come now to my specific, or rather to the remedy advised by Dr. Steyman, as the best anti-spasmodic in whooping cough. Dr. Steyman had advised to give from four to ten grains of subcarbonate of iron in the twenty-four hours, he gave as a rule to increase one grain for each year, so that a child six years old was to take six grains in a day, but from the beginning I found the dose quite inadequate, and I increased it to twenty-four and thirty-six grains in young children. I have given it either with water and syrup, or mixed with a cough mixture. It has never produced any inconvenience. On the contrary, I have found that all the children treated after this method were much less weakened, and recovered faster than with all other remedies. The proofs of the advantageous effects of it have been so numerous that I can scarcely enter into the detail; however, I may give a few facts to corroborate my assertion. In a child four years old I gave the subcarbonate of iron, and the fits, which in the preceding week, had been 101 in number, were reduced to 66 in the following week. In a weak and debilitated boy, aged seven years, the powder of belladonna had proved quite useless; when I tried the powder of iron, so prompt was the effect that in a few days the boy was quite cured; the sister of this boy was also cured with great rapidity. The last case of whooping cough which I have treated lately was of four months duration, and every thing had proved useless, when I gave the iron powder, which in the space of a few days succeeded in making the cough less and less.

In fact, I think I may assert with security, that the subcarbonate of iron enjoys a remarkable property to make the fits less violent, to

* Amer. Jour. Med. Sci. vol. vii. and vol. x.

diminish the number, and after a certain number of days to cure entirely the whooping cough.

It enjoys, besides, the advantage of strengthening the little patients, and gives them force to resist a complaint which sometimes lasts some weeks, and generally leaves the patients weak, low and exhausted. In some of those who have taken it, I have often seen, during the first days, a temporary increase of the cough, but it always subsided after two or three days, and did not prevent the good effects of the medicine. The beneficial results obtained by the use of the iron powder are easily explained by its anti-periodic and anti-neuralgic properties, and it shows *a posteriori* how much the whooping cough resembles a true neuralgia, or, at all events, a true nervous disease."

I have not tried this remedy, and can, therefore, give no opinion of its efficacy; but should judge from its tonic and blood-restoring properties, that it would prove a useful agent in low anæmic or debilitated cases.

Garlic is a remedy very highly recommended by Dr. Dewees; indeed, he states in his work on Diseases of Children, "that he has never employed any remedy of equal efficacy."

A child of six or seven years may begin by taking a third of a common sized clove, morning, noon and evening, in the absence of all febrile excitement, gradually increasing the dose.

Mr. Sutcliff combined the Peruvian bark with cantharides, and administered it with great success in whooping cough during twenty years.

The following is his formula:

| | | |
|----|---------------------|---------|
| R. | Tinct. Cort. Peruv. | f. ℥vi. |
| | Elix. Paregor. | ℥ss. |
| | Tinct. Canthar. | ℥i. M. |

Of this mixture, small doses were given three or four times a day, gradually increasing until a slight strangury was excited, then the dose was to be diminished.

When the active symptoms have subsided, Dr. Beatty, of Dublin, used the same remedy, and it is also recommended by Dr. Graves. The following is his formula:

| | | |
|----|---------------------|------|
| R. | Tinct. Cinch. Comp. | ℥v. |
| | " Lyttæ, | |
| | " Camphoræ, aa. | ℥ss. |

M. S. A teaspoonful three times a day in flaxseed tea or barley water.

Professor Trousseau recommends the following solution of nitrate

of silver in whooping cough ; one-fifth of a grain in solution with simple syrup daily.

Canterization by nitrate of silver has also been employed as a remedy in pertussis by Dr. Eben Watson, of Glasgow. The strength of the solution is gr. xv. to the ounce of water, applied every second day, by means of whalebone tipped with sponge, at first to the pharynx, and then to the glottis and larynx. The whole number of cases treated by M. Joubert and Dr. Watson, in 1854, were 167.

| | | | |
|---------------------------|-----------|---------------|----------|
| Cured in two weeks, | 96 cases, | or 57.4 | per cent |
| “ in three or four weeks, | 61 “ | 36.5 | “ |
| Resisted the treatment, | 9 “ | 5.3 | “ |
| Died, | 1 “ | or nearly 0.6 | “ |

To prevent the irritability of the stomach, he gives frequent small doses of heavy magnesia, combined with a few grains of the tris-nitrate of bismuth. He also employs the index finger or teaspoon to make the application to the throat of children.

Nitric Acid was first recommended by Dr. Arnoldi, of Montreal, as a remedy in pertussis with much success, and it has been adopted by Dr. Gibb, of London, late of Canada, who has published a work on whooping cough, in which he has given the opinion of ninety-three physicians, in relation to its pathology, with its history, mortality, complications and causes. He has also entered into a consideration of forty-three remedies, viz. : venesection, leeches, emetics, antimonials, external applications, change of air, warm bath, hydrocyanic acid, laurel water, belladonna, opium, hemlock, henbane, digitalis, tobacco, arsenic, silver, iron, zinc, lead, copper, cauterization by nitrate of silver, inhalations, coffee, Peruvian bark, quinine, hydrochloric acid, sulphuric acid, nitric acid, cochineal, alum, tannin, vegetable acids, alkalies, vaccination, cantharides, musk, asfoetida, meadow narcissus, cup moss, castor, nux vomica, and miscellaneous remedies. He remarks that the nitric acid has succeeded over and over again when other means have failed, and it is not such a hazardous remedy, when administered with ordinary precaution, as many described by him in his work. Dr. Arnoldi's method of prescribing the acid is as follows :

“To a tumbler full of very sweet water (almost syrup), add as much acid as will bring the water to the strength of pure lemon juice, when it is ready for use ; an adult may consume this quantity in three or four hours, a child one year old may take a desert spoonful every hour.”

“He has remarked that the efficacy depends on the amount taken,

and that especially by the frequency of repetition, to save the teeth, he advises a solution of carbonate of soda, two drachms to eight ounces of water, to be used as a gargle immediately after taking the acid."

"The object entertained by Dr. Arnoldi, in using this acid as a remedy, was to introduce the elements of the atmosphere into the blood by the process of gastric digestion, so as to enable the lungs to outstand the stage of temporary asphyxia. Whether the theory be correct or not, the result, he says, of his practice has been almost universally successful." He then goes on to give the outlines of twelve cases which were treated by Dr. A. with success. The doctor met with a few cases where the disease seemed to resist the action of the acid, owing, he remarks, to "spinal torpor at the track of the eighth pair and phrenic. In these the application of an ointment of the biniodide of mercury, so as to produce the specific eruption, and this produced a second and a third time, completely restored the efficacy of the acid."

"Dr. Gibb's own cases were sixty-four in number, which are reported as cured; he combines the acid with honey or syrup, and compound tincture of cardamom, &c."

Chloroform has been employed by Dr. Fleetwood Churchill, as a specific remedy in whooping cough in four cases which he reports; in two of these the whoop ceased in two days; in the third case it required its use for three weeks; in his fourth case the patient had to resort to the use of Prussic acid to complete the cure.

"In the case of young children he drops thirty drops on the palm of the hand, the mother to hold this before the mouth and nose of the child, sufficiently near to inhale it fully, but not so close as to exclude a portion of atmospheric air. The best time to begin is just as the patient feels the irritation in the chest increased to a cough.

Still he considers it more suitable for young persons of twelve or fourteen years old and upward. Two successful cases have come under my notice; the method was by placing a small portion of chloroform in a vial, and when feeling the inclination to cough, to inhale by removing the cork, the small bottle being carried in the pocket."

Before concluding my remarks upon the treatment of this disease, I must not neglect to state the great importance attached by some authorities to a change of air in the last stage, or the debility which results from it. Dr. Lombard remarks, that "in many cases which

had baffled all attempts to stop the cough, a change of air has accomplished the cure. I have found it equally indifferent to go out of town, or to come into town, provided there be a change; and even in the short distance of half a mile, I have seen the good effects of this plan of treatment." Dr. West, of London, says, that change of air with the use of alum during the last stage, generally expedites the cure." According to Dr. Gregory, change of air after severe and protracted cases is the only thing that will give the patient a chance of recovery.

Billard states "that goat's milk, pure or diluted, a good nurse, a residence in the country, particularly in the spring and summer, will materially conduce to the recovery of infants at the breast."

But nothing can be more pernicious than the exposure of children suffering from whooping cough, to cold or inclement weather, for it will bring back the cough and cause inflammation of the lungs.—*Medical Examiner*.

Remarkable Case of Gun-shot Wound of the Head. By H. V. M. MILLER, M.D., Prof. of Physiology and Pathological Anatomy in the Medical College of Georgia.

A stout young negro man, about twenty years old, was shot in the head, on the 31st of March, by the accidental discharge of a pistol. The ball entered the cranium one inch above the right eye, at a point corresponding to the middle of the right hemisphere of the brain. The boy instantly fell from a table on which he was sitting when he received the injury. Half an hour afterwards, when I saw him, he was unable to speak or move, and was breathing slowly and heavily. Upon removing the scalp, where the ball had entered, with a view to the use of the trephine, if necessary, it was discovered that the ball had divided, about one-fourth of it being found near the margin of the fracture, while the remainder had made a clean cut through both tables of the skull, and plunged deeply into the substance of the brain. The hole made by it readily admitted the little finger, and from it was freely discharged blood and broken down cerebral matter. The probe was passed some distance along the tract of the ball, but its exact position could not be ascertained, without danger of still greater laceration of an important and delicate organ. During the examina-

tion and dressing of the wound, the boy evinced sensibility and imperfect consciousness.

The following notes of the case, taken at my request, by a medical friend, will sufficiently detail its further history :

April 1st. Last night the boy suffered some pain, but enjoyed intervals of interrupted slumber. This morning reaction has supervened : he has a full pulse, 80 to the minute ; bled several ounces—pulse reduced to 75. Cold water dressing, which had been first applied, was continued. 12 o'clock.—Pulse again full and frequent, as before ; bled a second time, with like effect. This afternoon his intellect is perfect ; speaks without difficulty, complains but little, and gives a satisfactory account of the way in which the accident occurred, and of his position when shot—in fact, remembers every circumstance, both before and after the injury. He is unable to move his right arm, or his under jaw ; the left arm he moves with some difficulty, and the lower extremities perfectly. Drinks water and gruel, through a quill, with great ease.

April 2d. Bowels confined. Ordered a mild purgative, and, subsequently, an enema, which operated freely during the afternoon. Extremities cold for two hours before the action of the medicine ; but after it, quickly regained their natural temperature ; pulse 70.

April 3d. Rested well during the night ; has very little pain ; takes his gruel with decided relish, and is perfectly rational. Slippery elm poultice applied to favor suppuration ; pulse 68.

April 4th. Slept well ; pulse 66 ; appetite good ; external wound discharging ; bowels moved during the afternoon. 6 o'clock p. m.—No discharge from within the cranium ; pulse 72.

April 5th. Uneasy and sleepless last night. The hole in the skull found plugged with clotted blood, upon removing which, pus and broken down cerebral matter escaped freely ; after which, the uneasiness subsided, and the pulse sank to 66.

April 6th. Slept well ; pulse 65, soft and natural ; wound discharging freely ; appetite good ; perfectly rational.

April 7th. Passed a good night ; symptoms the same as yesterday.

April 8th, 9th and 10th. No material change in the treatment or symptoms, except that the skin of the upper half of the body became *exceedingly sensitive*, the slightest touch of the hand, or even of the covering, producing exquisite suffering. The paralysis of the left arm is something greater, though he is still able to grasp an object with the hand and move the arm slightly.

April 11th. Complains of pain in the head—bowels confined for forty-eight hours. Ordered purgative. 6 o'clock p. m. Medicine has not acted; pain in the head continues; pulse 86.

April 12th. Bowels moved during the night. Still complains of pain in the head, and great tenderness of the surface of the body, when aroused; but there is evident tendency to coma; pulse 90. 6 o'clock p. m. Pulse 108. Since noon to-day he has not spoken, but seems to recognize those who address him, and to understand what is said to him. The stupor gradually deepened until midnight, when he died.

The following is the account of the post-mortem examination, made, twelve hours after death, by Drs. T. J. and R. C. Word:—"The anterior half of the cranium was removed on a level with the eyebrows. On dissecting the scalp from the cranium, we observed an ecchymosed spot at the upper part of the left temporal fossa. On removing the cranium, we found that the ball had passed in an oblique direction downwards and backwards, through the right anterior lobe of the brain, into, and through the left lobe, and had lodged against the inferior angle of the parietal bone, driving in the inner table of it, and fracturing the outer, at a point corresponding with the ecchymosed spot which we had observed on the pericranium. The distance traversed by the ball was, by actual measurement, four inches.

"The surface of the anterior half of the right lobe presented spots of congestion, but there was not much discoloration of the substances of it.

"The anterior two-thirds of the left lobe, especially the membranes, presented a dark livid appearance. Along the tract of the ball the substance of the brain was broken down and softened. The left lateral ventricle contained some semi-purulent fluid, tinged with blood, a very little, was also found, in the right."

The interesting features of the above case, in both a surgical and physiological point of view, will so readily occur to the reader as to render unnecessary an extended commentary.

That patients sometimes live for days, and even recover, after severe injuries and frightful wounds of the brain, is a fact, well known to the profession. Generally, however, such wounds are inflicted by cutting instruments, as the sabre, or are made in such manner as to leave no foreign substance within the cranium—or, if made by a projectile, in all the cases which I can at present call to mind, only one hemisphere of the brain had been injured. Barron Larrey relates

the case of a soldier, wounded during an insurrection in Cairo, in which the ball entered the frontal sinus, passed to the occipital suture, and was extracted from thence by means of the trephine. This man recovered; but as it is expressly stated that the ball pursued the direct course of the longitudinal sinus, and its position was determined by passing an elastic bougie along that sinus, the presumption is, that neither hemisphere of the brain was wounded, at least, to any very great extent. Many cases are recorded, in which life was prolonged after gun-shot and other wounds of a single hemisphere; but that a man would live so many days, after both hemispheres of the brain had been traversed four inches by a pistol ball, is a most interesting, if not unique, surgical fact.

It is not less wonderful, that so extensive a wound, implicating that portion of the cerebrum which is supposed to be specially concerned in the intellectual operations, should not have produced disturbance of some of the mental faculties. Up to the twelfth day, the mind was as perfect in all its parts as if no injury had been received, thus setting at defiance both phrenological and physiological laws.

The peculiarities of the partial paralysis, though not clearly explicable upon received physiological principles, are infinitely more so than the exalted nervous sensibility of the surface of the body which constituted so prominent and troublesome a feature of the case.

However tempting the occasion, I do not propose to append to this history any speculations of my own, but simply to submit it to the consideration of the profession.

Medical Matters in Berlin.

BERLIN, June 19, 1855.

My Dear Sir: It will not, I think, be uninteresting to many of your readers to give a few particulars in regard to the expenses of living in the Prussian capital. I have been here long enough to judge pretty accurately in regard to this point. As far as I can see, the cost of living is by no means so extravagantly low as many imagine. Every favor that one asks must be paid for, and it is only the opportunity which one has to be isolated, and to be independent in his mode of life, that enables him to live more cheaply here than in America. And the fact of being a foreigner, will always involve one in some extra expenses.

The students all live in furnished rooms near the clinics and hospitals. These are let to them for about four or five American dollars a month. The expenses of the table are altogether variable. They must depend upon the habits of each person. I find that two American dollars a week is rather a high average in this respect. Every thing like clothes is fabulously low. A nice dress overcoat is but fourteen dollars, a hat a couple of dollars, and a pair of kid gloves perhaps half a dollar. All incidental articles are about two-thirds of the American value, though such expenses are more numerous here than with us. Books have the same value in both countries. Altogether, as far as I can judge, the physician who comes here to spend a year or year and a half in study, may save enough in the cheaper mode of life, to balance the cost of his passage out and back in a sailing vessel. In this case, he must live as all students do, for hotel life in Europe is much more expensive.

The question of acquiring the German language is important to one desiring to spend a long time here in studying. To be sure, many of the professors are able to converse fluently in English, and one-half of the shopkeepers on the chief street have a smattering of it; still one can by no means appreciate the facilities of the place, without a knowledge of the language, or the company of a German friend. To one who speaks French, many of the private courses of instruction are valuable.

One of the most pleasant occupations for the foreign physician here is to visit the various hospitals and collect what random information he may upon the spot. An acquaintance with the internes affords one an opportunity to do this as often as he pleases.

I have but just returned from a walk through some of the surgical wards of the *Charité*. What strikes one at first here, is the entire absence of splints. In fractures of every kind, wooden apparatus is entirely discarded. In place of it, gypsum bandages are used. These are like our starch bandages. The cloth is prepared in the gypsum and dipped into water when used. Even in fractures of the femur, they are the only dressing. They are put on over a thin layer of flannel, so as not to adhere to the skin, and as the swelling of a part goes down, a new set of the gypsum strips are applied. The custom at this hospital is to leave a patient, say a week, without a bandage, and then in time to anticipate union, the plaster casing is fixed upon the limb.

Dr. Langenbeck goes upon the same principle, not favoring splints, but uses the starch bandages instead of gypsum, and puts them on at

once. He says that this mode of dressing has always proved favorable in his hands. All swelling is kept down, and a speedy cure results. The tightness of the bandage is by no means painful, while the great point in the management of fractures, muscular compression, is admirably answered. The parts below the injury are, of course, always to be tightly wound, at the same time as the portion of the limb at the seat of the fracture. As the bandage loosens, it must at once be replaced.

I saw a case in the Charité to-day of a boy with a fracture of both fibula and tibia, of five weeks' standing, where he was walking round upon the fractured limb very well by the aid of a cane.

This mode of practice is not regarded so favorably in England as upon the continent. It has superseded all others in the large German hospitals. In St. Petersburg it has also been adopted. I dwell at length upon it, because it seems to be a vast improvement in the majority of cases in which wooden splints are now used. It is of no trouble as regards transportation, it can be made as thick or light as is desired, and is applicable at sea, in the camp, and in fact everywhere. Sir James Ballingall, in his excellent work upon Military Surgery, speaks in the highest terms of this class of dressings.

The history of the gypsum bandage is European. It was first brought before the profession by Vander Loo, a Dutch surgeon; and the first article of importance in regard to it was published in the *Vienna Weekly Journal of Medicine and Surgery*. It was made the subject of a report to the Imperial Austrian Academy. The dressing has been modified in one particular by Pirogoff, Professor of Surgery at St. Petersburg. This is merely to employ old linen and cotton clothes for the substance of the bandages. The modification arose from Prof. P.'s visit to the Crimea lately, to inquire into the condition of the Russian army hospitals there, and is, of course, only a point of economy.

One of the greatest hobbies here is the "Chamomile Tea Bath." The victim of this treatment must sit up to his chin in hot chamomile decoction, or allow a portion of his body to lie in it for hours after hours. The cases in which it is used are inflammation of the cellular tissue, new wounds where gangrene is feared, in poorly vitalized parts, and in cases of frost bite, either before or after an operation. This mode of treatment is clumsy, to be sure, but really seems most excellent in its results.

In erysipelas of the face, cotton batting is lightly wrapped upon it. The object is probably as much as anything to promote a healthy perspiration, and thus restore the skin to its natural functions.

I have noticed here in fractures of the clavicle the dressings are far behind the day. Undoubtedly many cases of this accident get along just as well without as with a dressing. But where one pretends to apply a series of straps to answer the three directions of upwards, backwards and outwards, and really fulfils neither of them, it is worse than useless. They don't seem to have any idea of Fox's apparatus, and I saw three cases to-day dressed without any kind of axillary pad.

In the several wards, Zitman's Decoction is quite in vogue. I don't know just how the ingredients are combined in the German preparation. The substances used are the same as stated in a note to the U. S. Dispensatory. The patient undergoes a sweat, and while in bed the mixture is drank.

The house surgeons and assistants in the Charité, and indeed in nearly all the Prussian hospitals, are young medical men from the army. They are detailed round to different stations, so as to improve themselves by hospital practice for the benefit of the army afterwards. This is what gives character to the medical corps of continental forces. Each man has undergone a most rigid experience in this way.

Dr. Langenbeck's clinic has been lately rich in cases of ankylosis. In no other place in the world is such attention paid to this class of malformations. Wherever anything can be done to restore the action of a joint, it is pretty certain to be tried. Subcutaneous tenotomy and boring into joints are of daily occurrence. Patients are placed under the influence of chloroform, and if necessary, the greatest force is applied to produce some movement. In a great majority of the cases thus treated, the limbs gradually recover their natural appearance, though it is doubtful whether the whole of this kind of practice is commendable. Good joints may result oftentimes at the expense of life. The opinion of Dr. Mott long ago expressed is, after all, the safest. A person had better have an awkward leg or arm, than undergo the risk of such violent treatment.

In a case of malignant disease of the scapula, the whole was extirpated, with the outer portion of the clavicle and head of the humerus. The patient, a lad of fourteen years, suffered much from the loss of blood, and will probably not recover. It was, however, his only chance of life. Dr. Langenbeck has already performed this operation three times with ill success in all. It must be very rare to find a person whose constitution is such, when this operation can be called for, as to insure his recovery afterwards.

Speaking of these capital operations, Dr. L. has exsected the head of the femur with amputation, in all seven times. Five cases of the seven have died. He has made the hypogastric section. These statistics may be interesting to your surgical readers.

I have had the misfortune to have seen the practical treatment of acute rheumatism here under rather unhappy circumstances, and also to acquire an insight into the interior management of a German hospital. An American physician, Dr. Henry P. Bostwick, of Bridgeport, Connecticut, on his way to St. Petersburg, was seized with a very severe attack upon his voyage, and will hardly go on for some weeks to come. Twenty-four American physicians have now gone to the Crimea. I wish that a word expressed in your Journal would do any good in persuading our young medical men at home that the prospect there is really anything but encouraging, without one is qualified for the greatest physical trials, and for continual embarrassment from an ignorance of the language.

But to acute rheumatism. The treatment here is almost identical with ours. Depletion by blood-letting, if deemed necessary, anodynes, blisters, if necessary, over the heart, and mercury, if demanded by any internal complications. The usual specifics are also used, and the inflamed joints are treated hydropathically. Wet flannel is wound round lightly and covered with oil silk, to prevent evaporation.

I had hoped to have given your readers a word in regard to the great Anatomical Museum at Berlin, but must defer that and other matters to my next letter.

N. E. GAGE.

—*New Hampshire Journal of Medicine.*

Treatment of Fistula In Ano. By T. R. MITCHELL, M.D., F.R.C.S.I.

I am anxious to direct the notice of the profession to a modification of treatment in the cure of fistula in ano. It is, I believe, an established axiom that in all cases it is necessary to divide the sphincter ani muscle, the usual operation consisting of the introduction of a probe-pointed bistoury as far up as the sinus extends. Others recommended the mere division of the sphincter in a lower situation. Whichever operation is performed, the result is very often a relaxed state of the sphincter for some time afterwards.

In a case on which I operated twelve months ago, the gentleman had considerable difficulty in retaining the bowel up, particularly after violent exercise or defecation. In this case I found that the fibres of the sphincter ani were much relaxed, so much so as to allow the rectum to protrude for several inches, so as very closely to resemble a prolapsed uterus. The constitution began to suffer from the constant discharges of muco-purulent matter, and he was quite incapacitated from following his employment. Having previously emptied the rectum by an aperient, I directed him to force down as much as possible, and then proceeded to touch the tumor with strong nitric acid; this was done with a piece of thin wood, four stripes extending from the upper part of the tumor to the sphincter being made on the surface; the part was then smeared well over with oil, and returned. The operation required to be repeated at the end of ten days, when only about two inches of the rectum could be forced down, and he has since then been able to go about his employment without the slightest inconvenience.

The profession are indebted to the late Dr. Houston of Dublin for the introduction of nitric acid in the treatment of vascular tumors of the rectum, many cases of its successful employment being given by him in the twenty-third volume of the *Dublin Journal of Medical Science*.

Since the above case was treated, I have had several of a similar nature, and the result has been the same. It would therefore be unpardonable in me to enlarge further on the subject, particularly as a similar treatment has been adopted very extensively by other surgeons, and is well known to the profession. It, however, struck me that if, instead of the great relaxation of the sphincter which so frequently follows its division, we could cause a constriction as great or nearly so as before the operation, we should be doing good service. Now this I think may be accomplished by a very simple method—employing the nitric acid before the relaxation takes place, or prior to any protrusion; and the plan I adopt, and which I have hitherto found very successful, is to apply the strong nitric acid around the margins of the sphincter ani which have been divided, and this I do on the fourth day after the operation; the pain of its application is quickly removed by smearing the parts over with oil, and it is only necessary to apply it twice.

Before concluding these remarks, I wish to state that I have found patients laboring under diseases of the rectum particularly difficult to get under the influence of chloroform, and have found the process

much facilitated by employing it locally as well as by inspiration, as I have found the parts excessively sensitive even when the patient has apparently been fully under its influence, and when pricking or pinching was unheeded. This, I think, may be easily explained by the fact of the patient's sufferings having been for some time directed to the part, and to the nerves being in a highly sensitive condition.—*Lancet*.

The Physiology of the Different Varieties of Paralysis. BY MARSHALL HALL, M. D., F. R. S., London. (Read before the Institute of France, Academy of Sciences).

As there are two principal nervous centres, the brain and the spinal cord, so there are two great classes of paralyses, according as the influence of the brain or spinal system is intercepted or annihilated.

I denominate cases belonging to the first class, in which the palsied parts are deprived of the influence of the brain, *cerebral paralysis*. Cases in which the influence of the spinal cord is intercepted from any second class, *spinal paralysis*. I do not mean to imply by these terms that there are, in these cases respectively, lesions of the encephalon or spinal cord, but simply that by some disease or injury the influence of these organs is abolished, so far as the muscles of the palsied limbs are concerned. Hemiplegia is ordinarily a cerebral paralysis; but in some cases, a spinal paralysis also; whereas disease limited to a small part of the dorsal segment of the cord produces a *cerebral paralysis* of the lower extremities; the influence of the portion of spinal cord below the seat of disease continuing to reach the palsied limbs. The destruction of a considerable portion of the spinal cord, or a suspension or annihilation of the functions of the spinal cord produces a spinal paralysis.

A cerebral paralysis, I repeat, is one in which the muscles are deprived of the influence of the brain; a spinal paralysis, one in which the muscles are deprived of the influence of the spinal cord.

Facial hemiplegia is a cerebral paralysis; paralysis of the facial nerve is a spinal paralysis. The distinctive characteristics of these two classes of palsies are as follows:

• In cerebral paralysis, the influence of the will is alone interrupted. When this paralysis is complete, voluntary movements are abolished.

All the functions depending on the medulla oblongata and spinal cord persist. We have, in different cases :

1. Emotional movements ;
2. Movements connected with yawning, coughing, etc. ;
3. Diastolic movements ;
4. Tonic symmetrical contractions of the hands ;
5. Comparative increase in the irritability of Haller ;
6. Comparative increase in susceptibility to the action of strychnia.

In spinal paralysis, the four species of movements above enumerated are not observed, and the Hallerian irritability is comparatively less.

I return to cases of hemiplegia. In most cases, shortly after the attack, there is somewhat of an amelioration, a partial return of voluntary power ; the phenomena I have mentioned are manifested also. In other cases there is no amelioration ; the phenomena adverted to are absent or scarcely perceptible. There are no tonic spasms of the hand and arm ; the Hallerian irritability is not augmented. It might be said that such cases were exceptions to the rules I have laid down. The truth is, it appears to me, that, in such instances, the shock of the attack has been sufficient to destroy, so to speak, the nervous power of the spinal system. Thus, when we divide the spinal marrow of the frog from the brain by an incision, we suspend nervous power, so as to abolish diastolic movements. A yet more violent shock, as a stroke of lightning, would annihilate it altogether.

These phenomena are objects of pure observation, excepting that relating to irritability. To test this function of the muscular fibre, I have experimented on various occasions, with the aid of galvanism, and repeated my experiments with every precaution.

I made use of a simple galvanic current, produced by a Cruikshank machine. I placed a palsied and a sound hand, for example, in the same basin of pure water, and the feet in another, and carefully observed which was affected by the slightest degree of galvanism. I found that in cerebral paralysis, the palsied limb is most susceptible of galvanic excitation ; whereas in spinal paralysis, the palsied limb is less susceptible than the sound one.

I deduce from these experiments many conclusions of interest, both to the physiologist and the physician.

1. That the brain, by its acts of volition, tends to exhaust muscular irritability.
2. That the spinal marrow, on the contrary, is the source of this irritability.

3. That galvanism will serve to diagnose between cerebral paralysis and spinal paralysis.

The phenomena I have already enumerated : yawning, the effects of emotion, diastolic movements, symmetrical tonic spasms, the effects of strychnia, etc.

Besides cerebral and spinal paralysis, there are nervous affections connected with the medulla oblongata and pneumogastric nerves, which I propose to discuss on a future occasion, as well as the diseases of the ganglionic system.

Lastly, to complete our enumeration of paralysies, there remain several varieties of palsy that are exceedingly obscure ; paralysis *cum agitatione* ; paralysies *e plumbo, e rheumatismo, ex hysteria, e dentitione*, etc. Much labor is requisite before we can form clear ideas on these diseases. Emotions, spinal irritation, the action of poisons, the influence of pain, the effect of shock ; what a field for study.—*Virginia Med. and Surg. Jour.*

Medical Education. By JOHN LOCHE CHANDLER, M.D., St. Albans, Vermont.

"Non ignara mali, miseris succurrere disco."

The plain English of my motto may be thus rendered—My early training in classical and scientific studies was almost nothing. Of the dead languages I am profoundly ignorant, with the exception of Latin of which I know very little. Of living languages I am equally ignorant, with the exception of my mother-tongue; and even for the little skill I may claim in this, I find myself largely indebted to my superficial knowledge of Latin, a language I cannot read understandingly, even with the help of a dictionary. Of mathematics and philosophy, with all their dependencies, and natural history, I was utterly ignorant, when I most needed them as indispensable aids to the study of my profession. My acquirements in all these are yet so meagre, that in considering to what departments I may be most indebted for the little I have attained, I find myself too ignorant to determine. I simply know that numbers, magnitude, and their relations, are to be investigated and understood by the application of certain rules, or tests ; but what these are exactly, or what they should be called, I know not. With the exception of some familiarity with a few En-

glish Essayists, and Dramatists, and a little acquaintance with an ancient volume of Ethics, written by savans, of whom Isaiah, David, and Luke, a physician, are examples, such was my own preparation for entering on the study of medicine. "Fools rush in, where angels fear to tread."

So much for my "non ignarus mali;" and the plainness with which I have most truthfully stated it I trust will be tolerated, for the sake of enforcing more effectually on *such younger members of the profession*, as may need it, and who are not yet past hope, no less than are *medical students*, a just estimate of the importance of *preliminary* facilities, for acquiring a knowledge of medicine. Being myself well qualified to *feel* their indispensable necessity, "*miseris succurrere disco*," which probably means, not liking my companionship, I would gladly rid myself of my fellow occupants, by helping them out of the ditch, upon my own shoulder. If *scholarly* readers choose to call my rendering of the passage a *free translation*, they can retire. I did not call their attention. *We* understand each other; that is, the "late-caught rustics" and myself, unscourged of birch, and unredolent of midnight oil, who are to consider these my lucubrations. Before they retire, however, let us do ourselves the justice, we, "the late-caught," to appraise them of our mindfulness, that their parchment vouchers are but circumstantial evidence; that unconned lessons are sometimes *recited*, and that unused brains come to be little better than no brains.

Having the field exclusively to ourselves, let me warn you, confidentially, against yielding any vantage-ground, (we have little enough,) by presuming too much on the indolence of the enemy. The parchment-men have resources at their command that enable them, with comparative ease, to achieve that which costs us protracted, and sometimes fruitless toil; and though we are often tempted to undervalue the prowess of an educated competitor, from the fact of his palpable indolence and inattention to medical studies, emergencies frequently occur, which confound and put us to shame, by the demonstration of his superior tact in diagnosis; his deeper and more just conceptions of pathology; and his more enlightened views of therapeutic agencies. Whence comes all this? We have, perhaps, long observed his indolent habits, and have seldom, if ever, witnessed his exhibition of intellectual activity or force; while we are conscious ourselves of diligence and effort of professional inquiries. It unquestionably comes of early training in the preliminary studies, which are essential aids to the effective study of medicine; no less, perhaps, than of systematic training in the principles of medicine itself. With equal natural en-

downments, with habits of application, comparatively indolent, our competitor will long eclipse us, in the estimation of intelligent observers; so long, indeed, that most of us will tire of emulating the perseverance of the tortoise, in his fabled race with the hare. Such a race is, indeed, a hard one, and victory even, seems an inadequate reward for a life of hardship and self-denial. But the victory is sure, nevertheless; sure to those who will run diligently, and for whose benefit I am thus exposing my own deficiencies, and, perhaps, making myself ridiculous; not sure to those who, like myself, defer their efforts to repair the evils of a deficient education till they are fifty years old; and hopeless, if even after this late repentance, they suffer, like myself, long intervals of sottish indolence to intervene. With such, docility has not yet become an incompatibility; age has not benumbed their faculties with its petrifications; they are yet in the early years of professional life; or better still, within the precincts of medical pupilage. To all such, having fair capacities, and who will work heartily in their calling, the future promises all that is honorable or desirable.

Two examples occur to me which I cannot deny myself the pleasure of exhibiting, as forcible illustrations of the power of indomitable purpose to overcome obstacles, apparently insuperable, in the path to usefulness and just professional distinction. They are both furnished in the history of two medical students, pupils of my father, the late Dr. Benjamin Chandler; who was quick to discover and appreciate talent, and watched its developments with the gusto of an epicure. The first of these presented himself to my father, an entire stranger, in the rough garb of a backwoodsman, announcing his wish to commence the study of medicine forthwith. It was the custom of country physicians, in those early days, to receive pupils, boarding, and sometimes even clothing them, trusting to their future professional success for remuneration. He signified his wish to discharge his pecuniary obligations, as they accrued, by his daily labor on the farm, or in any other employment my father might furnish. He had traveled some thirty miles on foot, from a new settlement among the mountains, where he was reared, and where his ardor in the pursuit of knowledge must have been kindled. Yet his training had been all effected in the rough and brief terms of the district schools of that pioneer period, and mountainous region, usually taught and sustained by backwoodsmen themselves. His bearing was indicative of intelligence and good sense; of solidity, rather than of brilliancy. My father acceded to his terms at once. It was during my own pupilage; and though the only

advantage I could claim over him was a superficial smattering of Latin, I affected profound amazement at his temerity, in presuming to enter on the study of medicine with so little preparation; especially with the drawbacks on his time, by the undignified employment of "his own hands," in catering for his daily support. My father replied to this sage announcement of my sentiments toward my fellow pupil, that I should soon be relieved from the burden of such regrets, by finding myself amply employed in following, at a respectful distance, my fellow student's lead in the acquisition of knowledge. My impartial and sagacious father's prediction was ruefully verified. With no special claims to genius, he had intellectual strength, and an iron will, to do what he purposed; the true secret, no doubt, of success in every department of human pursuit. His work, was to diligently study and understand the elementary books in medicine, prescribed by his preceptor; his pastime, the entire fulfillment of his contract with my father; leaving him still many fragments of time, which were successfully appropriated in gleaning items of knowledge, from every department which could either directly or indirectly facilitate the study of his profession. He is now an eminent, if not the most distinguished physician in a distant state; has been, I think, chairman on an important committee of our National Medical Association; at least, wrote the report of that committee, which was published in the Transactions of the Association, and has given a volume to the profession which will be read and valued, long after his old chum is forgotten.

The late Dr. William Beaumont, of St. Louis, long distinguished as a surgeon in the army of the United States, and still more for his remarkable experiments and researches on the digestive function, was also the pupil of my father; of whom he was justly proud, and confidently predicted his future eminence in the profession. Dr. Beaumont also entered on the study of medicine under many disadvantages. He commenced somewhat later in life than is usual, and in addition to considerable deficiency in preliminary acquirements, labored under so great a degree of *deafness*, that serious apprehensions were entertained of its proving an insuperable obstacle to professional success. His own just estimate of these disadvantages may have given force and permanence to his efforts, working out, possibly, a higher grade of professional character, than would otherwise have been attained. The first years of his professional life were also consecrated, with rigid fidelity, to acquisition in such departments of science as he most needed; resulting in his early elevation to high rank in his profession, and ultimately leaving hundreds of his diplomated competitors immeasurably behind him.

For the deeper discoveries and the graver contributions to medical science, the profession must ever be mainly indebted to those who are fitted by *early* discipline, for vigorous and accurate thought. The analogies between physical and intellectual training are not mere matters of fancy, but have their foundation in truth. The country Jonathan, from his very childhood wedded to his donkey, his plough and his hoe, who covets no better pastime than a splinter of pine with his jack-knife, is not to be lightly esteemed. His individual service to his fellow men, who are nourished by the bread he produces, entitles him to no unenviable rank, as a public benefactor. But Jonathan may unwisely tire of his honorable employment, and choose to see the world. Some doggerel about "the wide, wide sea," may have caught his ear, and awakened a long dormant propensity; and he makes the sage discovery that he has "mistaken his mission;" that he has wasted long years in furrowing his father's acres, when he should have been ploughing "the mighty deep." His stripling brother, whose intellectual and physical capacities merely equal his own at the same age, catches the infection, and leaving the paternal hearth, and its genial pursuits, they enter together on the training which is to fit them for the duties, the endurance, and the dangers of a sailor's life. The stripling begins with the cabin-boy's berth, and Jonathan goes before the mast.

Their first essays in seamanship may be quite satisfactory. The lusty "yeo-heave" is, perhaps, not ill adapted to Jonathan's sturdy arm, well braced and consolidated by many a jerk and tug at the plough-tail. The flexile muscle and youthful alacrity of the stripling fit him for the labyrinth of the cabin-boy's duty. But ere long, the hand of Jonathan, moulded and hardened to the plough-tail, finds itself undocile in handling "the ropes." There are dizzy heights among the "masts," which are not only to be gained, but maintained. But "the *top* of his ambition" wabbles suspiciously. The unpliant muscle, staid and stark with its adaptations to the plough-tail and the rugged furrow, takes its lessons in agility hardly; the feet refuse to cling, and the fingers to twine, in their unwonted work. Jonathan looks upon the matter, however, as a sort of legerdemain, to be acquired by some mysterious method, which, no doubt, he shall master in due time, and he returns to his "yeo-heave" with redoubled energy; till his shipmates admit that his "yeo-heave" is unsurpassed, and he regards it himself, as the sum of seamanship. His comrades wink knowingly, or jeer, as he bestrides his hobby, whether in tempest or calm, nearing breakers, or in a clear sea; yet the incontrovertible fact

that a good "yeo-heave" is an indispensable item in navigation, has secured his position as a sailor; and though he sports his tarpaulin unjauntily, he wears it with impunity.

Meantime the stripling's pliant fingers have become familiar with "the ropes;" his agile limbs and clear eye have been put in requisition, till he is at home and at ease, at every point in his "good ship," from mast-head to hold. His "yeo-heave" may be inferior to Jonathan's, but he wears his tarpaulin with unconscious jauntiness. On the next encounter of tempest and breakers, it would be no matter of surprise if the tug of Jonathan's sturdy arm, reinforced even with the "yeo-heave," should have less influence on the ship's course, than the agility, adroitness, precision and power, which is sure to characterize the stripling's execution of orders, in all emergencies.

"The crampy shackles of the plough-boy's walk
Tie the small muscles, when he strives to talk."

If disuse, or inappropriate adaptation in early life, disqualifies the tongue and its associate organs for the euphonies of an easy "enunciation," will "the late-caught rustic" and his intellectual faculties be any less encumbered with "shackles?" Will not these, also, have become too obdurate and intractable, by disuse, or perversion, for the purposes of effective, accurate thought; pliancy being no less important to its objects, than strength?

Let us follow Jonathan and the stripling in another direction. Instead of the doggerel about the "sea," some prating Siren may have gained their ears with high-flown jargon about "the godlike apprehension of man! how noble in reason! how infinite in faculties!" Man's physical dignity and importance is dwarfed at a blow; hand-craft is banished in disgrace, and head-craft becomes the cynosure. Alas! for Jonathan. ("Et quorum pars magna fui." *Sub rosa.*) His flagging and baffled intellect, galled with its yoke, and wincing with the pressure, may covet, when too late, honorable release from its responsibilities, and yearn for the jilted plough-tail, where it reposed in happy contemplation of the well-turned furrow, and its grateful returns. The stripling has also tasted the Siren's heady cup, and the learned professions constitute the domain, where the future obelisk is already rising, in the dim distance, for the inscription of their own names and deeds! But in what department shall it tower? The stripling dreams of the Bar, the Bench, and the Senate, where he is to distance all competitors, and captivate every auditor! Jonathan leans to the sagacious and the profound; and already, in anticipation,

nods his gracious acknowledgment to his deferential admirers. And what should shadow forth the grand ideal of his aspirations, if not the mysteries of Physic? The stripling's eloquence succumbs to Jonathan's wisdom, and they seek the field of medicine, but by different routes: the one, apparently direct—the other, circuitous.

Jonathan, though not *in the sere*, is "bearded like the pard," and consequently must spurn the milk by which unfledged striplings are nourished into manhood. He enters at once upon the intricacies of organization and functions; of general, descriptive, and pathological anatomy; but the very words in which structure, form, relation, function, and derangement are described, or defined, have an import which his own knowledge of language is inadequate to comprehend, and which no lexical expedient, within his reach, can help him to make clear. The originals of the figures, and examples, and processes, by which these are illustrated, belong to matters wholly beyond the range of his former inquiries; and even in mere descriptive anatomy, the definite force and clearness of the text is half lost to him. Jonathan marvels! But he ponders till he finds himself greatly comforted with the discovery that *the books* are the mere vestibule, the labyrinth of dark and winding passages, through which he is to grope for the *abracadabra*, the cabalistic key, which unlocks the great temple of medical science at once, and reveals all its mysteries, in full blaze. He resumes his courage, and encounters therapeutics. But here he is somewhat disappointed. Nature has comparatively so much, and art so little to do, in the prevention and cure of disease, that he almost takes it as a personal affront, and infringement on his own expected prerogative, and he regards Mistress Medicatrix, rather as a rival than a coadjutor. He inwardly thanks Heaven, however, that medicine is not wholly transcendental; that potions, pills, and powders, are veritable things, that can be tasted, touched, and handled, and he will triumphantly demonstrate that they can be swallowed.

Perhaps he may aspire to the honor of graduation in some metropolitan school of medicine? We might doubt his success; but the diploma will be forthcoming; for though his recitations may halt, and his thesis be a proxy, his *purse* is replenished from his father's acres. It will long remain a problem, whether his sojourn at the metropolis is for the better or the worse. The mind of the merest dullard doubtless, must feel the touch of intelligence from an attendance for months, on the instructions and demonstrations of the lecture-room, the dispensary, and the hospital. The principles of

medicine, however, can no more be rightly taught, or apprehended, without certain prerequisites, than the philosophy of language and the graces of style can be taught or apprehended, without the previous knowledge of letters and words. His great deficiency in these preliminaries must of necessity result in his acquisition of superficial details, rather than principles. His pretension will outstrip even, his attainment in these, till it merges in temerity, and thus becomes all the more dangerous. Principles are the *ballast* of our imperfect *craft*; but temerity will stretch its canvas to the gale, inversely with its amount of deposit in the *hold*.

Jonathan is diplomated, and takes his place in the profession, where, to do him justice, he sometimes deserves his success, in supplanting a competitor of still more exceptionable claims. But what are his characteristics as a physician? Instead of delving the mine for ore, he traverses the surface, and is ever adding to his hoard of gathered trifles, the shapeless bricks and curious implements, which sound experience has already tested, and cast away as worthless. In the exercise of his professional function, instead of considering attentively the known laws of the animal economy, and quietly seeking for the evidence and nature of their disturbance, he hurries at once, from expedient to expedient; peers furtively, hither and thither, for *remedies*, all unconscious the while, that the *ailment* to which he ministers is yet a *terra incognita*, in his own mind; and blind to the palpable absurdity of fabricating means, without the knowledge of ends. Hobbies in medicine, unfortunately, are more abundant, and more abundant and mischievous, than in navigation. If Jonathan the sailor bestrided his hobby on every emergency at sea, it will be no marvel if Jonathan the Doctor, should mount his "yeo-heave," for a steep chase in medicine. It is no common continence that can refrain, when conscious impotence quails before pressing emergency. The windy jade, invitingly caparisoned, the very stirrup swaying as if by magic, to the fitting foot, may, under like circumstances, prove a sore temptation to us. It ill becomes us to scoff, while Jonathan rides. No doubt, he will improve. Intercourse with intelligent men, and familiarity with the practice of others will gain him the endurance of the profession, and the tolerance of his patrons. But "the crampy shackles" will "tie" him still, and mark the type of his whole professional life.

But what of the stripling? Happily, his chin was yet innocent of down, and consequently there were no incompatibilities between himself and the birchings which appertain to the school-room, the

seminary, or the college. Birch is fragrant ; and where it enforces diligence, it sheds a grateful and refreshing odor. The stripling took his discipline kindly, and with such singleness of heart, that he came to be unconscious, even, of the obelisk and its blazon. I am in no mood to follow him, in his progress onward, from the preparatory schools to the university ; and thence, through the halls of scientific medicines, to his profession. How should I ? My foot is unused to such acclivities. *Kith and kin* forbid, and prompt me to another path. "The soul of Jonathan was knit with the soul of David ; and Jonathan loved him as his own soul." To me, the stripling is an alien, and the history of his pupilage may be written, and his professional characteristics portrayed, by some kindred Bigelow, or Holmes, if they choose, but not by me. I merely chronicle the fact, that Jonathan was no churl in his welcome of the younger brother to a common field of labor. He was patronizing and protective in his bearing toward him, as became an elder brother, though it often occurred that the touch of the stripling's finger achieved the purpose for Jonathan's patient, that had long resisted the sturdy "yeo heave."

The effective study of medicine involving the exercise of the mental powers, some just conceptions of the constitution, or economy of these powers, must be necessary to their right use. I may be wasting words upon others, but I am conscious that what I now conceive to have been erroneous opinions on this subject, were serious obstacles to my own progress in professional attainment. Many distinctions have been attempted to designate the difference between genius and talent, which I conceive are too vague to be of much practical value. My own perceptions are too gross to appreciate the transcendental chemistry by which the schoolmen have analyzed the human intellect, till each ultimate iota of its faculties is set apart ; till the last barley-corn which found itself balancing doubtfully on *ultima thule* is subjugated, and falls discreetly into its place, with the prim precision of a nosological arrangement. With all deference to the Psychologists, in their attempts to anatomize the intellect ; to dissect its several systems ; to demonstrate each specific organ, they seem to have acted on the unwarranted assumption that the faculties of the mind, like the functions of the body, are each dependent on the agency of a specific intellectual organ ; as the function of sight is dependent on the physical organization of the eye, or hearing on that of the ear. Physiologists have succeeded, in the main, in demonstrating the dependence of each particular function on its appropriate

organ ; and have been so distinctive in their definitions, that little danger remains of our mistaking the manifestations of one, for those of another. But it is noticeable that one faculty, or manifestation of mind is often defined by terms, or phrases, which are as often used, and with equal appropriateness, to designate another. I know not that the masters in psychology advocate such analogy between mental and physical organization, for I never read them. I simply know that the second-rate literature of the day, with which, I am sorry to say, I have been most conversant, and to which I fear young men are generally most addicted, abounds with loose phraseology, and crude opinions, leading to the conclusion that each separate act, or process of the intellect, is effected exclusively by some isolated or specific faculty of the mind, and not resulting from the action of the mental powers, *as a whole*. Analogies no doubt may be found, or fancied, between the most dissimilar things ; but on the plea of analogy, we might as well ascribe the phenomena of vital action to the power of gravitation, it being the law which regulates the motions of the visible universe, as to claim the dependence of each intellectual faculty on a special mental organ, the several functions of the living body being dependent, each on its special organ. A better illustration would be, to liken the intellect to the *single string*, which the finger of Ole Bull has demonstrated to be adequate for unlimited variety and power of intonation.

The power of invention, which seems to have been claimed exclusively, as the definition of genius, from its very nature must include, and be identical with, the elements which constitute the power to improve, to adapt, to execute, being the definition claimed for talent, would therefore seem to favor the conclusion that genius and talent are mere properties, moods, or manifestations of one intellectual principle. Cultivation of the mind, no doubt, is more effectual in the development of what is called talent, than of genius, though manifestly not inoperative on the latter. Indeed, I see not how it is possible to *cultivate* genius, except by the methods which all admit are indispensable to the development of talent ; and while we are idly admiring and coveting the power of the former, we are wasting our resources, and insuring our own defeat, by spurning the humble achievements, which constitute the step-stone to the higher glory. The strength of talent is of more intrinsic worth than the brilliancy of genius.

I do not propose to offer a programme of subjects, nor of medical books, for the guidance of medical students, or the younger members

of the profession. It is the province of educated men. My purpose is simply to suggest those aids and expedients, which separately may seem trifles, but in the aggregate prove invaluable, and perhaps, indispensable, to the full appreciation of the books and medicine. *Language* is the vehicle, and to some extent even, an instrument of thought. It might be too much to claim that a good thinker, of necessity presupposes an adept in language; but we may safely assume that, *other things being equal*, the accuracy and force of our thought will be in proportion to our knowledge and skill in language. Single words have frequently such diversity of meaning, and phrases such variety of import, depending on their relations with other words and phrases; and often, indeed, varied by the subject on which they are employed, that two minds, of equal capacity, and giving equal heed, may draw very different conclusions from the same lecture, or the same chapter, and yet both be wrong. A very little knowledge of Latin, my own experience has proved, greatly facilitates our apprehension of the force and import of English words. If *so much* is not already attained, it should be attempted. A little success will amply repay all the sacrifice it might require. A large amount of professional terms in medicine are derived from the Greek; and these often compounded from several roots, of diverse import. Being wholly ignorant of Greek, myself, as a consequence, I have probably expended more extra time, during my life, in turning the leaves of all sorts of Lexicons, to attain the required elucidation, than goes to the *legal* term of medical pupilage; and what was still more disheartening, often unsuccessfully. Though I am far from regarding our ignorance of Greek and Latin, as an insurmountable bar to fair attainments in our profession, I have little doubt that six months, devoted to the study of these languages, under a competent teacher, during pupilage, or even in the early years of practice, would be repaid by four-fold facilities in learning aright the principles of medicine. The benefit is not all comprised in the disclosure of the literal import of terms, compounded from Greek and Latin roots; but in the subjugation of the mind to the power and significance of cultivated language, thus pervading and irradiating the whole range of study. Indeed, if there be one indispensable prerequisite for the successful study of medicine, it is knowledge and skill in the *language* in which it is presented to the mind of the student; the master-key to all the learning which the same language furnishes for its elucidation.

If the young practitioner, whose early training has been stunted,

expects to repair the evil, he must secure facilities, both in regard to time and place for study. He must also enforce upon himself a *habit* of study, which, unfortunately, his training never can have fully formed. A habit of study in its appropriate time and place, will beget a habit of observation and reflection, without which, progress in professional knowledge and skill is impossible. When the appropriated hour arrives, professional engagements permitting, he should be found in his place, and at his table; which should be furnished, as its permanent and indispensable appendages, with the best dictionaries, "unabridged," and without stint; English, classical, medical, surgical; and the more the better, in each department. Compends in medicine are dangerous toys, but compends in other departments of science, needed for reference, and often indispensable for elucidating passages in medical books, are, perhaps, admissible. The medical periodicals should never be overlooked; indeed cannot be wholly disregarded by the medical practitioner, young or old, without loss, and even retrogradation, in his professional position. It might even be a judicious improvement in medical education, to add the exaction of some familiarity with these, to the pupil's programme.

It should be borne in mind, however, that the intellect can never be disciplined to practical efficiency in medicine, by exclusive professional habitude. The mental powers, wearied with protracted effort in one direction, are not merely rested, but refreshed with new accessions of vigor, by occasional employment in some other direction. The hyper-fecundity of the age in works of fiction, farce, and foolery, makes the proper selection of books a most difficult achievement. Nineteen-twentieths of the current literature of the day would be more fitly appropriated as fuel for the fire, than as food for the mind. Fortunately for us, right-minded and intelligent benevolence, co-operating with enterprise in trade, has provided the means of furnishing our table without danger of loading it with obtrusive frippery, mawkish sentiment, or moral pollution. The "Living Age," offers an example of sound eclecticism in literature, judiciously conservative, and worthy of all imitation. The young physician will soon have attained no small amount of the general knowledge, and have done something in the effective mental culture, which his professional necessities require, by the careful perusal of its weekly numbers.

The exercise of reducing our own thoughts to *written* language, will be found a useful method of cultivation. But it should be borne in mind that thoughts, to be written, must preëxist in the mind. It does not follow, however, that an attempt to write should always be

deferred till we are conscious of the thought ; for the effort itself may be the very stimulus required, to rouse the torpid intellect to activity. It may be well to consider the question, meanwhile, somewhat deliberately, whether our manuscript shall be dispatched at once to a Medical Journal ! Dr. J. Bigelow's just rebuke should first be pondered : " Medical journals are filled with the crude productions of aspirants to the cure of disease." The pen should be used to minister to our own cultivation ; not to our self-conceit. The same writer has condensed a volume into a sentence, on the subject of medical education, before which my own pretension should be dumb. " The usefulness of a medical school depends not so much on the length of its session, as upon the amount of education, primary and ultimate, which it requires, the fidelity with which it exacts its own professed requisitions, and the train of healthy exertion, active inquiry, and rigid, methodical study, to which it introduces its pupils."—*Buffalo Medical Journal*.

PART VI.—EDITORIAL AND MISCELLANEOUS.

THE DANGERS OF IGNORANCE.—The best writers in all departments of literature, except professed fiction, are accustomed to regard it as a rule that before they write upon any subject they should gain as accurate information as possible concerning it. Especially is this the case in the various departments of science. The departures from the rule produce results sometimes sad, sometimes comic; though the latter class, while they make one smile, excite also the feeling of pity for the writer.

Even in matter of fact medical literature, we have seen several instances of the latter class, though we must confess that in a somewhat protracted editorial experience we have found them rather rare. Nothing however has met our eye which excites so constantly and so equally throughout the whole our laughter and our pity for the writer as the following, which we extract from the " New Orleans Medical News and Hospital Gazette" for September. That our readers may fully appreciate it, we ought to say that there has been somewhat lately a new infusion of editorial strength into this journal which has chiefly developed itself in quotations, rhymes, and a free use of interrogation and exclamation points.

But we give the article with all its original adornments ; changing nothing and italicizing nothing :

Catheterization of the Trachea, etc.

Turpe est viro, id, in quo quotidie versatur ignorare.

Although long convinced of the utter futility of the much vaunted operations of Dr. Horace Green, of New York city, we have hitherto remained silent on the subject, looking with unwavering confidence to the speedy advent of such an unequivocal and impartial expose of the of the whole matter by his own New York brethren as would be most satisfactory to the whole profession. Notwithstanding a greater delay than we had anticipated, the time has arrived ; the enlightened medical men of New York began to feel the importance of settling definitely this widely vexed question, and in December last the "New York Academy of Medicine" appointed a committee of seven of its members to investigate the matter. The report of this committee has at length been presented to the Academy. The gentlemen composing the committee are said by the *New York Medical Times* to have been chosen by Dr. Green himself, consequently we have no reason to expect objections on his part, either on account of ignorance or personal animosity. Six of the committee (Drs. Parker, Wood, Stevens, Anderson, Metcalf and Stone,) make a "majority report," which is, as we conceive, totally adverse to all Dr. Green's pretensions, and Dr. Barker, of whom the *New York Medical Times* says—"Dr. Barker's interests are identified with those of Dr. Green in this matter, and, therefore, due allowance must be made for his minority report"—made a minority report in support of Dr. Green. In reading the account of this latter report, we are forcibly reminded of the drowning man catching at a straw ; strange as it may seem, Dr. Barker at one time so far forgot himself as absolutely to offer to a body of scientific gentlemen, as evidence for the support of his friend, Dr. Green, the certificate of a parcel of *women*, whom Dr. Green had not cured, but had under treatment ! 'Tis said that straws show which way the wind blows. We fear this is a "puff" of unwholesome quality.

For some years past Dr. Green has been burning out the trachea (?) of his patients to an extent peculiar to himself ; as is always the case, he has had some proselytes who have ever been ready to echo his declarations, for

" 'Tis thus the spirit of a single mind
Makes that of multitudes take one direction,
As roll the waters to the breathing wind,
Or roams the herd beneath the bull's protection."

The mass of the profession, however, have rejected both his theories and his practice ; some not believing in the practicability of the operations, others denying the utility of the same, even if practicable. Although Dr. Green has been pretty freely assailed in various quarters, still many of his brethren have kept hands off ; but there is a time when forbearance ceases to be a virtue. We listened in silence to tales of burnt-out trachea, and even to right and left bronchi cath-

eterized at will ; but when Dr. G. proclaimed that he had, in direct opposition to the simple but unerring laws of hydrostatics, injected a dram of a solution of nitrate of silver into a cavity in the lung, he not only took the fatal leap which is ever, sooner or later, the lot of the wild enthusiast, but he offered one of those naked insults to the common sense of his brethren which could not be too promptly repelled.

For two years past Dr. Green has been in the daily habit of introducing instruments (?) into the trachea; he would have us believe that he is the expert, the Magnus Apollo in this *novel* (?) art; yet Mary Norton, in presence of the committee, vomited a *portion of the contents of her stomach through the tube which Dr. Green himself has introduced*, and which he has assured the committee was then in the trachea—the avowal of Mary Norton to the contrary notwithstanding. If this is the degree of certainty arrived at by Dr. Green, save us from his operations! What would be said of the medical man who, if called on to cleanse the stomach of poison, should pump water into the *lungs* of the patient and *drown* him? And yet, with all due deference for Dr. Green's skill, we think he is the very man to commit the blunder. If he could not be certain of the whereabouts of his instrument in the case of an individual on whose trachea he had been accustomed to operate, and who insisted that the instrument was in the œsophagus, we maintain that he would be as apt to drown a man with a stomach pump as to wash out his stomach. This is not exaggeration; it is one of those plain, homespun inferences which arises in the mind of any honest searcher after truth. But we pass on to another point of evidence.

In eighteen cases where the committee endeavored to introduce the sponge probang into the trachea, they *failed eighteen times*—or one hundred per cent. The *N. Y. Medical Times* says these failures were at the hands of Dr. G. himself. With a small curved tube, such as used by Dr. Green himself, there was *ninety-two per cent. of failures*; and with a tube curved “to a form corresponding to a circle six inches in diameter,” there was thirty-eight per cent. of failures. So that it is entirely a matter of *accident* when the sponge probang enters the larynx; it is next thing to accident when Dr. Green's own tube enters; and in thirty-eight cases out of every hundred the subjects of the injection through the largely curved tube must be content to take the solution into their *stomachs*. Yet, most lucky dogs are these thirty-eight; for the committee report the speedy death of the only subject into whose *lungs* they introduced the solution.

We have not room in our journal for as extended remarks on this important subject as we deem necessary; we should have been pleased to call the attention of our young practitioners more closely to all the points; it is this portion of the profession who are more apt to be caught by hooks baited with highly flavored novelties. This is a progressive age, but it is also the age of humbug. All is not gold that glitters, nor is the dictum which emanates from a medical school any more truth for its origin, than Worcestershire sauce the genuine article for having the label on the bottle.

We have always been, and always expect to be, the advocate of specialities in medicine; we maintain the ground that any mind of medium capacity, can master one subject, while few can master all; and consequently, both the profession and their patrons would be benefitted by the system. Moreover, a devotion to specialities would better enable us to contend against the hoards of quacks who surround us. However, we will always be amongst the first to proclaim against the *prostitution* of specialism. If a member of the profession be a good oculist, aurist, surgeon or obstetrician, we will most cheerfully acknowledge the same; but we will ever discard all pretensions not based on reason and sound philosophy. The moment a man aspires to a reputation for impossibilities, then is our pen against him—not as a man, for as such we know him not, but as a rebel to science.

This report of the New York Academy of Medicine is one of the severest rebukes ever inflicted on so prominent a member of our profession, though the known character of the six gentlemen who presented the same is sufficient earnest of its justice. While we criticise we indulge no feeling of exultation, for

“The truly brave are soft of heart and eyes,
And feel for what their duty bids them do.”

Being always proud to acknowledge amongst our ranks intellects such as all most truly accord Dr. Green, we feel but too sorry that he should have thus cruelly ridden a hobby so little able to carry him.

To the readers of the Monthly we do not need to point out the lamentable errors into which the writer of the above has fallen. We say lamentable, because it is a thing to be lamented, that a gentleman, (for such we shall assume that the writer is, though his article does not bear any particular marks of his being such,) should rush into print, apparently to make permanent the evidence of his ignorance.

For his information we shall say a little, though our purpose was not to speak of this matter again for the present. We indulge the hope that the writer may be benefitted by it, but his case looks like one of chronic ignorance, accompanied with an unwillingness on the part of the patient to be cured of it.

The writer must have been pretty well inflated with something to make such a beginning as the first paragraph. In this part of the country it is usually called “gas,” and produces no effect except to make readers laugh at authors. We presume it is the result of his protracted silence, which seems to have continued till this *quasi* pregnancy came to a sudden termination. It must be a great relief to the author to be rid of it. Letting the gas blow by, however, we must *first* notice the fact that the mode of appointing the committee is erroneously stated, or at any rate so as to produce an erroneous impression. *Secondly*, the writer endorses a false assertion of the now sole editor of the *Medical Times* of this city, that the committee was

selected by Dr. Green himself. The facts we have stated in another page of this number of the MONTHLY. *Thirdly*—It is not true that six of the committee made a majority report, as we showed in our September issue. *Fourthly*—Dr. Barker did not read “the certificate of a parcel of women whom Dr. Green had not cured but had under treatment.” But supposing he had done so, it would have been of more weight with honest enquirers than all the mendacious assertions of the *Times* editor.

In the second paragraph we have more “gas,” more ignorance, an interrogation point, some rhymes, and some misrepresentation. We permit the “gas” and its accompaniments again to pass by, and simply suggest to the writer, to study the effect of crystallized nitrate of silver upon mucous membranes before he again twattles about its “burning out.” His assertion that “Dr. Green proclaimed that he had injected a dram (*sic*) of a solution of nitrate of silver into a cavity in the lung” is false, and we challenge the writer to produce his proof. Of course, all the bombastic language about “leap,” “enthusiast,” “insult,” etc., is wasted.

In the third paragraph we have not so much gas, but more interrogations, more ignorance, more false assertions. If the writer means to say, that Dr. Green has daily introduced catheters into the trachea for the last two years, he is in error, for the practice was commenced only one year ago. If he means to allude to the sponge probang, he is equally in error, for Dr. Green has daily practiced it for more than ten years.

It is untrue that Dr. Green was accustomed to operate on Mary Norton's throat, and so the writer will see if he will take so much trouble as to read the majority's report. For the error of the remainder of his statement concerning this woman, he is not responsible. What is said about drowning, sounds very pretty.

The fourth paragraph shows a sweet simplicity as well as marked credulity in believing the assertions of our mendacious neighbor. As we have not now to do with him, we do not dwell upon it. The last sentence contains a truth, (we are glad to see one) which must sting the majority, while it at the same time seems to be intended to give a false impression. It is true that “the committee report the speedy death of the only subject into whose lungs *they* introduced the solution,” an offence for which it has been suggested that they are indictable by the Grand Jury. It is not true that it was not introduced into the trachea of others before the committee by Dr. Green, and if the writer has read the report of the majority, which

we doubt, he must have known that it was twice done by Dr. Green, even to their satisfaction. We have elsewhere stated that the result has been beneficial. Such a falsification or suppression of the truth does not become a gentleman.

The next paragraph, about Worcestershire sauce, dictums, &c., also sounds very pretty. It contains two or three stale truths expressed in a stale way. We presume the figure of the sauce is a good one, for it looks a little as if the writer had formerly traded in it.

The last paragraph but one is a gassy blast on the writer's tin trumpet, in which he brags a little, but which is of no sort of importance to any body else. While the final one is so decidedly in Jack Falstaff's vein as to recall his valor to us. If Dr. Green had been overthrown—which does not happen to be the case—the comparison would have been almost exact between this valiant, heroic, poetical and lachrymose editor, and Jack standing by the side of Hotspur's body.

In conclusion, is it too much to ask the gentleman who wrote this article on which we have commented, to take the precaution before he again writes on a scientific subject, and this one especially, to obtain some little information concerning it, and to go some where near the truth. It is on his account, not our own, that we make the request.

THE EPIDEMIC AT NORFOLK.—We have had the pleasure of a conversation with Dr. Warren Stone, of New Orleans, who, on his way north, visited Norfolk. His opportunities for studying yellow fever have been abundant for more than twenty years, and he has used them diligently. He believes, if we did not misunderstand, that yellow fever is a specific disease, occurring but once ordinarily in the same person, and with none of the characteristics of contagious diseases. At Norfolk he investigated the statement that it was imported by the steamer Ben Franklin, and found that there were cases of the disease in the city before the Franklin broke bulk or even arrived. Contrary to the popular belief, he maintains, and the results of his enquiries seem to prove, that the terrible epidemic in Virginia is the result of some influence unknown to us, but which has extended itself gradually from Rio Janeiro, northward. The characteristics of the disease at Norfolk are the same as at New Orleans in 1853, and Dr. Stone finds no evidence that it is a new disease or African fever, as it has been termed, but a severe epidemic of ordinary yellow fever.

American Anti-Slavery

CORRECTION.—Several journals have fallen into an error concerning a fact of some importance. The cause of it is apparent, but we shall not now dwell upon it. The error is in believing that the committee on cauterization, etc., was selected by Dr. Green. This is not true in any sense. The fact is that the President of the Academy, Dr. Smith, after the adjournment, asked Dr. Green of whom the committee should consist. Dr. Green at once declined to name them, but remarked that as Dr. W. Parker had moved the resolution, it was proper that he should be chairman. After the number was almost filled, Dr. Smith asking constantly "who next," Dr. Green named Dr. Sayre, but somebody, (there were several bystanders), objected to him, because there were surgeons enough already appointed. It is a little doubtful whether Dr. Green or Dr. Smith first named Dr. Barker, though it is certain that he was objected to, "because he is a friend of Dr. Green." On the other hand, no one was opposed by Dr. Green.

It is not our purpose to say more at present on this subject, and we should not have occupied so much space as we have in this volume of the MONTHLY, had it not been for the hostility and misrepresentations of the *Times*, and the silence of the *New York Journal of Medicine*. Our readers are probably aware of the reasons which provoke the assaults of the former. If report be true, the latter is tongue-tied by the obligations of the editors to the chairman, by whose assistance they became proprietors of their journal.

CHANGE.—Prof. Torrey has resigned the chair of Chemistry in the College of Physicians and Surgeons of this city, and Dr. Le Conte, of Georgia, has been appointed in his place. We have not learned whether or not he accepts the appointments. Other changes are reported by rumor, but we have no authority to repeat them.

OPHTHALMIC SCHOOL.—Our readers will observe Dr. Stephenson's advertisement of his winter lectures in his specialty. It will be seen that his last class were highly gratified by his course.

AMERICAN PHARMACEUTICAL ASSOCIATION.—This body held their annual session last month in this city, in one of the lecture rooms of the New York Medical College. The attendance was we judged good, and the discussions were animated. We shall, no doubt, have a full report of the proceedings in the pharmaceutical journal.